

*September 2005*

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# ***Environmental Assessment***

## ***Beneficial Use of Dredged Material Tampa Bay Dredged Hole Filling Hillsborough and Pinellas Counties, Florida***



***U.S. Army Corps  
of Engineers  
Jacksonville District***

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## **1.0 PURPOSE OF AND NEED FOR ACTION.**

### **1.1. INTRODUCTION.**

The Jacksonville District conducts maintenance dredging of the Tampa Harbor Navigation Project. Since the initial construction, sand and sediments have accumulated in the harbor and channel reducing the navigable capacity of the project. In order to meet the public need as authorized by Congress, the Federal standard must be maintained. The traditional placement options for the Harbor include the Ocean Dredged material Disposal area, upland Dredged Material Management areas CMDA-2D, CMDA-3D, and DMMA C that is owned by the Mozaic Corporation and is leased to the local sponsor, the Tampa Port Authority. In addition to these traditional placement areas, the State of Florida has requested that when suitable material is available, that it be placed along the western shoreline of Egmont Key to protect the shoreline adjacent to the McIntosh Gun Battery that is the remaining fortification on Egmont Key. As part of the Corps Beneficial Uses of Dredged Material Program, additional opportunities were sought. Initial discussions, the Tampa Baywatch organization suggested a number of opportunities for restoring habitat in Tampa Bay using dredged material which included placing material in former dredged holes in Tampa Bay bottom. The Corps is considering placing dredged material in several of these holes as an environmental restoration initiative.

### **1.2. AUTHORITY.**

Section 204 of the Water Resources Development Act of 1996, Beneficial Uses of Dredged Material.

#### **TAMPA BAY**

3 Mar 1899 Channel 27 feet deep by 300-500 feet wide from Gulf of Mexico to Port Tampa Specified in Act & H. Doc. 52/55/3

3 Mar 1905 Channel depth of 26 feet with sufficient width Specified in Act.

#### **TAMPA AND HILLSBOROUGH BAYS**

25 Jun 1910 Depth of 24 feet in Hillsborough Bays H. Doc. 634/61/2

8 Aug 1917 Channels 27 feet deep by 200-500 feet wide from Gulf of Mexico to and in Hillsborough Bay, and basins at mouth of Hillsborough River and Ybor Estuary. H. Doc. 1345/64/1

#### **HILLSBOROUGH RIVER**

3 Mar 1899 Channel 12 feet deep by 200 feet wide to within 100 feet of Lafayette St. Bridge (maintenance only) H. Doc. 545/55/2 & A.R. for 1898 p. 1357

#### **TAMPA HARBOR**

22 Sep 1922 Consolidation of above projects. Specified in Act.

3 Jul 1930 Egmont Channel 29 feet deep and Sparkman Channel 300 feet wide.  
H. Doc. 100/70/1

30 Aug 1935 Egmont Bar Channel 32 feet deep by 600 feet wide; Mullet Key Cut 30 feet deep by 400 feet deep; other project channels in Tampa Harbor, except in Hillsborough River, 30 feet deep by 300 feet wide and basin at Port Tampa 550 feet by 2,000 feet. S. Doc. 22/72/1

20 Jun 1938 Widen bend between Sparkman Channel and Cut D, Hillsborough Bay Channel by 250 feet; Ybor Channel 400 feet wide; and extend Hillsborough River basin easterly 300 feet. S. Doc. 164/75/3

20 Jun 1938 Breakwater at Peter O. Knight Field. S. Comm. Print 76/1

2 Mar 1945 Sparkman and Ybor Channels 400 and 500 feet wide; extend Ybor basin westerly 250 feet, and Hillsborough River basin easterly 150 feet in lieu of 300 feet. S. Doc. 183/78/2

2 Mar 1945 Channel 9 feet deep by 100 feet wide in Hillsborough River and removal of obstructions to Florida Ave. Bridge. H. Doc. 119/77/1

2 Mar 1945 Channel 25 feet deep by 150 feet wide and basin in Alafia River S. Doc. 16/77/1

17 May 1950 Egmont Channel 36 feet deep; Mullet Key Cut 34 feet deep by 500 feet wide; Tampa Bay, Hillsborough Bay, Port Tampa Channels 34 feet deep by 400 feet wide; Port Tampa turning basin 34 feet deep by 750 feet by 2,000 feet wide; Sparkman Channel and Ybor turning basin 34 feet deep; and channel 30 feet deep by 200 feet wide to and including turning basin 700 feet by 1,200 feet in Alafia River. H. Doc. 258/81/1

3 Sep 1954 Removal of obstructions in Hillsborough River from Florida Ave. Bridge to City Water Works Dam (maintenance to be assumed by local interests). H. Doc. 567/81/2

23 Oct 1962 Channel and turning basin at Port Sutton 30 feet deep; Ybor Channel 34 feet deep and 400 feet wide. H. Doc. 529/87/2

31 Dec 1970 Egmont Bar Channel 46 feet deep by 700 feet wide; Mullet Key Cut Channel 44 feet deep by 600 feet wide; Tampa Bay Channel 44 feet deep by 500 feet wide to junction of Hillsborough Bay and Port Tampa Channels; Hillsborough Bay Channel 44 feet deep by 500 feet wide to junction with Port Sutton entrance channel, thence 42 feet deep by 400 feet wide;

Ybor Channel 40 feet deep by 300 feet wide; Port Tampa Channel 42 feet deep by 400 feet wide from junction with Hillsborough and Tampa Bay Channels to Port Tampa turning basin; Port Tampa turning basin. H. Doc. 91-401/91/2

31 Dec 1970 42 feet deep, 2,000 feet long and 900 feet wide; Port Sutton entrance channel 44 feet deep by 400 feet wide; Port Sutton 44 feet deep with turning diameter of 1,200 feet; enlargement of turning basin at the entrance of Ybor Channel and deepening to 42 feet; East Bay entrance channel 44 feet deep by 400 feet and 500 feet wide about 2,000 feet North from Port Sutton turning basin; East Bay turning basin 44 feet deep with 1,200 feet turning diameter; East Bay approach channel 44 feet deep by 300 feet about 2,500 feet North from the East Bay turning basin; and maintenance of Port Sutton terminal channel 44 feet deep by 200 feet wide for a distance of 4,000 feet. Bottom 1 foot of all project segments in "inactive" category. H. Doc. 91-401/91/2

17 Nov 1986 Maintenance of local channel and turning basin to a depth of 34 feet in Tampa East Bay. Public Law 99-662

17 Nov 1988 Port Sutton Channel deepening to 43 feet over length of 3,700 feet. Public Law 100-676

28 Nov 1990 Maintenance of the Alafia Channel at a depth of 34 feet if the non-Federal sponsor dredges the channel to such depth, except that the non-Federal sponsor shall reimburse the United States for the incremental costs incurred by the Secretary in maintaining the channel at a depth greater than 30 feet. Public Law 101-640

PROJECT: Tampa Harbor - Bottom 1-foot of all project segments authorized in 1970 in "inactive" category Channel from Gulf of Mexico to Port Tampa and Tampa, 45 feet deep by 700 feet wide on Egmont Bar, 43 feet deep by 600 feet wide in Mullet Key Cut, 43 feet deep by 500 feet wide from Mullet Key Cut through Tampa Bay to the junction of Hillsborough Bay and Port Tampa Channels; 43 feet deep by 500 feet wide in Hillsborough Bay Channel from the junction with Tampa Bay and Port Tampa Channels to the junction with Port Sutton entrance channel, and thence deepening to a depth of 42 feet at the existing width to the junction with Seddon and Sparkman Channels; 30 feet deep by 300 feet wide in Seddon and Garrison Channels, widening of bend between Sparkman Channel and Cut D of Hillsborough Bay Channel by 250 feet; a turning basin 30 feet deep at the mouth of Hillsborough River involving cutting back northwest corner of Seddon Island by 150 feet; 43 feet deep by 400 feet wide in Port Sutton entrance channel, and like depth in a turning basin with a turning diameter of 1,200 feet; 41 feet deep by 400 feet wide in Sparkman Channel, 39 feet deep by 300 feet wide in Ybor Channel; enlargement of turning basin at the entrance to Ybor Channel to a depth of 41 feet and an additional width of 200 feet on the Southwest edge of the present basin; 41 feet deep by 400 feet wide in Port Tampa Channel, and 41 feet deep by 900 feet and 2,000 feet wide in Port Tampa turning



basin; 43 feet deep by 400 feet - 500 feet wide in East Bay entrance channel North from the Port Sutton turning basin for distance of about 2,000 feet; a turning basin in East Bay 43 feet deep with a turning diameter of 1,200 feet; an approach channel 43 feet deep by 300 feet wide North from East Bay turning basin for a distance of about 2,500 feet; maintenance of Port Sutton terminal channel to a depth of 43 feet, 200 feet wide and 4,000 feet long; and maintenance of a channel 12 feet deep by 200 feet wide in Hillsborough River from basin at mouth to a point 100 feet south of Lafayette Street bridge, 2,400 feet; and provision of a channel 9 feet deep by 100 feet wide to a point, 2,000 feet above Columbus Drive Bridge, 2.4 miles, and removal of snags, wrecks, and piling thence to City Water Works Dam, 7.2 miles; a channel 34 feet deep by 200 feet wide from Hillsborough Bay to and including a turning basin 34 feet deep by 700 feet and 1,200 feet wide in Alafia River, 3.6 miles; and a breakwater at Peter O. Knight Field, Davis Islands about 2,000 feet long, maintenance by local interests; maintenance of Port Sutton Channel, 150 feet wide and about 3,000 feet long, and turning basin 500 feet by 1,300 feet in area, both at a depth of 30 feet; Length of project is about 67 miles, including 10 miles in Hillsborough River, 3.6 miles in Alafia River, Garrison Channel and that part of Seddon Channel in excess of 200-foot width and 12-foot depth were deauthorized by Public Law 97-128, 29 December 1981.

Hillsborough River - This improvement forms a part of the project for improving Tampa Harbor, Florida, and consists of the maintenance of a channel 12 feet deep by 200 feet wide from the basin at mouth to a point 100 feet south of Lafayette St. Bridge, 2,400 feet; thence a channel 9 feet deep by 100 feet wide to a point 2,000 feet above Columbus Drive bridge, 2.4 miles; and removal of snags, wrecks, and piling thence to City Water Works Dam, 7.2 miles. Length of project in Hillsborough River is 10.0 miles.

Alafia River - This improvement forms a part of the project for improving Tampa Harbor, Florida, and consists of a channel 34 feet deep and 200 feet wide from the ship channel in Hillsborough Bay to and including a turning basin 700 feet wide and 1,200 feet long in Alafia River. Length of project is about 3.6 miles.

The local sponsor for the project is the Tampa Port Authority. There would be no cost sharing because the work would be accomplished during maintenance work.

### **1.3. DECISION TO BE MADE.**

The decision to be made is which holes in Tampa Bay bottom should be restored.

### **1.4. RELEVANT ISSUES:**

The relevant issues include:

- a. Water quality.
- b. Manatees.
- c. Fisheries.
- d. Benthic organisms.

- e. Seagrasses.
- f. Historic Properties.
- g. Aesthetics.
- h. Recreation.
- i. Navigation.
- j. Economics.
- k. Safety.

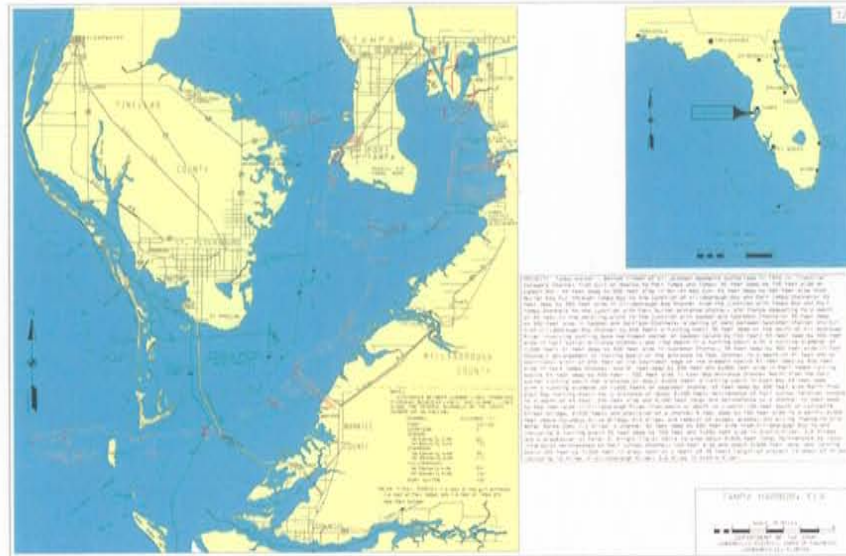


Figure 1, Tampa Harbor Navigation Project

### 1.5. PERMIT REQUIREMENTS.

In accordance with the Clean Water Act, a water quality certification is required for restoration where there is a discharge of dredged material into waters of the United States from the State of Florida. In addition, the State of Florida will review the Corps determination for consistency with the Florida Coastal Zone Management Program.

### 1.6. METHODOLOGY.

An interdisciplinary team used a systematic approach to analyze the affected area, to estimate the environmental effects, and to write the environmental assessment. This included literature searches, coordination with agencies and private groups having expertise in particular areas, and field investigations.

## **2 ALTERNATIVES INCLUDING THE PROPOSED ACTION.**

### **2.1. INTRODUCTION.**

The alternatives section is the heart of this Environmental Assessment. This section describes in detail the no-action alternative, the proposed action, and other reasonable alternatives that were studied in detail. Then based on the information and analysis presented in the sections on the Affected Environment and the Probable Impacts, this section presents the beneficial and adverse environmental effects of all alternatives in comparative form, providing a clear basis for choice among the options for the decisionmaker and the public. The key to this section is the alternative comparison chart, Figure 2.1, page 8. This section has five parts:

- a. A description of the process used to formulate alternatives.
- b. A description of alternatives that were considered but were eliminated from detailed consideration.
- c. A description of each alternative.
- d. A comparison of the alternatives.
- e. The identification of the preferred alternative.

### **2.2. HISTORY OF ALTERNATIVE FORMULATION.**

From the 1880's to the present, dredges have maintained the various navigation channels in Tampa Bay. The material has been used to fill wetlands for residential and commercial development as well as for highway construction over these low-lying areas. When not being used as fill material, the dredged material was usually sidecasted adjacent to the navigation channel creating islands in some instances. Some of these are still visible today as part of the landscape next to these channels. As the need for this material or its desirability as construction material declined, suitable places were required to hold the material to prevent it from reentering the channel. In addition, several locations offshore were used as ocean disposal sites. Disposal of shoal material dredged in 1981 was in the ocean dredged material disposal site located in the Gulf of Mexico, offshore from Tampa Bay. That site is no longer in use. A new Ocean Dredged Material Disposal Site (ODMDS) has been designated by the EPA. When the Beneficial Uses of Dredged Material was announced Allen Burdett of the Tampa Office of the Florida Department of Environmental Protection along with others recommended the restoration of the shallow water areas in Tampa Bay. These areas were formerly inhabited by sea grasses and were altered for shoreline development by excavating sandy materials to be used for fill as causeways, housing and commercial properties. The Tampa Baywatch organization under its director, Captain Peter Clark, prepared a report identifying potential restoration opportunities including some of these borrow areas which could be filled using dredged material. The Corps suggested a pilot project for filling one of these holes to show that we could successfully place the material and help foster seagrass bed growth. A hole

near MacDill Air Force Base was selected because of its location adjacent to the navigation channels to be dredged and the location adjacent to sea grass beds. The Corps partially filled that hole until suitable capping material could be found to complete the job. The Tampa Estuary Program also prepared a plan for Tampa Bay entitled the Comprehensive Conservation Management Plan that also had an action plan for Beneficial Uses of Dredged Material. The Corps also prepared a Dredged Material Management Plan for the Tampa Estuary Program also detailing beneficial uses of dredged material projects from the Tampa Baywatch plan.

### 2.3. ELIMINATED ALTERNATIVES.

Initially 22 holes were recommended for study by the Tampa Estuary Program. Funding was not sufficient to study all the sites, therefore, 11 were selected representing the most interested. Of these, 3 were eliminated from consideration because of economics i.e., they were too far removed from the dredging site to be considered viable for Beneficial Uses of Dredged Material with the cost for doing maintenance work. Those excluded include Cypress Point Dredge Hole, St. Petersburg/Clearwater Airport East Dredge Hole, and Big Island Cut Dredge Hole.

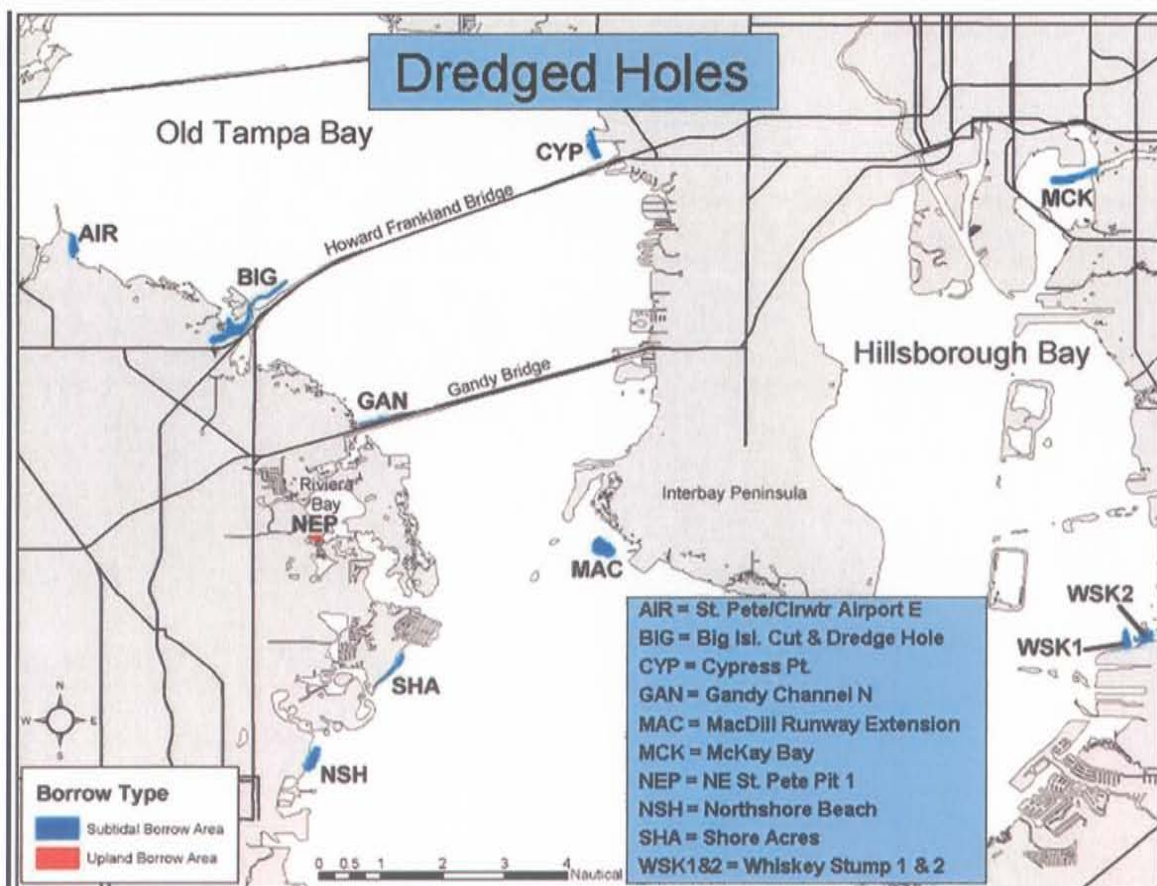




Figure 2. Dredged Hole Locations, Tampa Bay. (Courtesy Tampa Estuary Program)

## **2.4. DESCRIPTION OF ALTERNATIVES.**

### **2.4.1 No Action.**

There would be no restoration of dredged holes in Tampa Bay from maintenance dredging activities. Dredged material would be placed in the currently used sites.

### **2.4.2 Gandy North Channel Dredged Hole.**

The proposed work would consist of the maintenance dredging of Tampa Harbor Navigation Project and the placement of approximately 842,000 cubic yards of material in the hole to bring it within 3 feet of the water surface elevation to promote seagrass growth. Measures would be taken to meet turbidity standards at the 150 foot mixing zone or the edge of the sea grasses beds. Also manatee protection measures would be implemented at the site that would include no wake speeds by crew boats.



Figure 3. Gandy North Channel Dredged Hole. . (Courtesy Tampa Estuary Program)

### **2.4.3 MacDill Air Force Base Runway Extension Dredged Hole.**

This hole has been partially filled by a previous maintenance dredging and placement event in 2000. It is located immediately adjacent to sea grass beds. Silt curtains and a flocculent were used to protect the sea grasses. Approximately 426,000 cubic yards of material will be placed in the hole to bring it to within 3 feet of the water surface elevation to promote sea grass growth. Measures would be taken to meet turbidity

standards at the 150-foot mixing zone or the edge of the sea grasses beds. Also manatee protection measures would be implemented at the site that would include no wake speeds by crew boats.



Figure 4. MacDill Air Force Base Runway Extension Dredged Hole. (Courtesy Tampa Estuary Program)

#### 2.4.4 McKay Bay Hole.

Approximately 891,000 cubic yards of material will be placed in the hole to bring it to within 3 feet of the water surface elevation to promote sea grass growth and reduce hypoxia. Measures would be taken to meet turbidity standards at the 150-foot mixing zone or the edge of the sea grass beds. Also manatee protection measures would be implemented at the site that would include no wake speeds by crew boats.



Figure 5. McKay Bay Hole. . (Courtesy Tampa Estuary Program)

#### 2.4.5 Northeast St. Petersburg Borrow Pit 1.

Approximately 175,000 cubic yards of material would be placed in the borrow pit to reduce stratification in the pit and the potential for fish kills from cold spring rains. Measures such as using a flocculent would be used to insure that the return water would meet state water quality standards. Also manatee protection measures would be implemented at the site that would include no wake speeds by crew boats. Pre-construction surveys would also be used to avoid sea grass beds along the pipeline access route.



Figure 6. Northeast St. Petersburg Borrow Pit 1 (Courtesy Tampa Estuary Program)

#### 2.4.6 Northshore Beach Dredged Hole.

Approximately 441,000 cubic yards of material will be placed in the hole to bring it to within 3 feet of the water surface elevation to promote sea grass growth and reduce hypoxia. Measures would be taken to meet turbidity standards at the 150-foot mixing zone or the edge of the sea grass beds. Also manatee protection measures would be implemented at the site that would include no wake speeds by crew boats.



Figure 7. Northshore Beach Dredged Hole. (Courtesy Tampa Estuary Program)



#### 2.4.7 Shore Acres Dredged Hole.

Approximately 312,000 cubic yards of material will be placed in the hole to bring it to within 3 feet of the water surface elevation to promote sea grass growth and reduce hypoxia. Measures would be taken to meet turbidity standards at the 150-foot mixing zone or the edge of the sea grass beds. Also manatee protection measures would be implemented at the site that would include no wake speeds by crew boats.



Figure 8. Shore Acres Dredged Hole. (Courtesy Tampa Estuary Program)

#### 2.4.8 Whiskey Stump Key Dredged Hole No.1.

Approximately 207,000 cubic yards of material will be placed in the hole to bring it to within 3 feet of the water surface elevation to promote sea grass growth and reduce hypoxia. Measures would be taken to meet turbidity standards at the 150-foot mixing zone or the edge of the sea grass beds. Also manatee protection measures would be implemented at the site that would include no wake speeds by crew boats.



Figure 9. Whiskey Stump Key Dredged Hole No. 1. (Courtesy Tampa Estuary Program)



#### 2.4.9 Whiskey Stump Key Dredged Hole No. 2

Approximately 245,000 cubic yards of material will be placed in the hole to bring it to within 3 feet of the water surface elevation to promote sea grass growth and reduce hypoxia. Measures would be taken to meet turbidity standards at the 150-foot mixing zone or the edge of the sea grass beds. Also manatee protection measures would be implemented at the site that would include no wake speeds by crew boats.



Figure 10. Whiskey Stump Key Dredged Hole No. 2. (Courtesy Tampa Estuary Program)

## 2.5. ALTERNATIVE COMPARISON.

Table 1.

RESOURCES	No Action Alternative	Gandy North Channel	MacDill Air Force Base Runway Extension Dredged Hole	McKay Bay Dredged Hole	Northeast St Petersburg Borrow Pit No. 1	Northshore Beach Dredged Hole	Shore Acres Dredged Hole	Whiskey Stump Key Dredged Hole No 1	Whiskey Stump Key Dredged Hole No 2
Water quality	There would be continued lack of circulation in the holes allowing for stratification in some instance	Minor short-term impact from increased turbidity. State water quality standards would be met.	Minor short-term impact from increased turbidity. State water quality standards would be met.	Short-term increase in turbidity. Long-term capping	Minor short-term impact from increased turbidity. State water quality standards would be met.	Minor short-term impact from increased turbidity. State water quality standards would be met.	Minor short-term impact from increased turbidity. State water quality standards would be met.	Minor short-term impact from increased turbidity. State water quality standards would be met.	Minor short-term impact from increased turbidity. State water quality standards would be met.
Safety	No Impact.	No Impact.	No Impact.	No Impact.	No Impact.	Minor benefit to safe swimming.	No Impact.	Minor benefit to waders.	Minor benefit to waders.
Noise	No Impact	Minor short term impact	Minor short term impact	Minor short term impact	Minor short term impact	Minor short term impact	Minor short term impact	Minor short term impact	Minor short term impact
Benthic Organisms	No impact	Short-term impact from covering and smothering of organisms. Long-term impact minor from recolon-	Short-term impact from covering and smothering of organisms. Long-term impact minor from recolon-	Short-term impact from covering and smothering of organisms. Long-term benefit from recolon-ization with	Short-term impact from covering and smothering of organisms. Long-term impact minor from recolon-	Short-term impact from covering and smothering of organisms. Long-term impact minor from recolon-	Short-term impact from covering and smothering of organisms. Long-term impact minor from recolon-	Short-term impact from covering and smothering of organisms. Long-term impact minor from recolon-	Short-term impact from covering and smothering of organisms. Long-term impact minor from recolon-

RESOURCES	No Action Alternative	Gandy North Channel	MacDill Air Force Base Runway Extension Dredged Hole	McKay Bay Dredged Hole	Northeast St Petersburg Borrow Pit No. 1	Northshore Beach Dredged Hole	Shore Acres Dredged Hole	Whiskey Stump Key Dredged Hole No 1	Whiskey Stump Key Dredged Hole No 2
		ization	ization	non-contaminated organisms	ization	ization	ization	ization	ization
Manatees	No impact	No impact if standard manatee protection conditions are adhered to	No impact if standard manatee protection conditions are adhered to	No impact if standard manatee protection conditions are adhered to	No impact if standard manatee protection conditions are adhered to	No impact if standard manatee protection conditions are adhered to	No impact if standard manatee protection conditions are adhered to	No impact if standard manatee protection conditions are adhered to	No impact if standard manatee protection conditions are adhered to
Fisheries	Continued loss of seagrass beds as nursery areas and foraging areas.	Long-term loss of recreational fishing. Long-term benefit to Bay fisheries from establishment of natural bay bottom and potential for creation of more productive life-cycle habitat.	Long-term loss of recreational fishing. Long-term benefit to Bay fisheries from establishment of natural bay bottom and potential for creation of more productive life-cycle habitat.	Long-term benefit to Bay fisheries from establishment of natural bay bottom, covering of contaminated sediments and potential for creation of more productive life-cycle habitat.	Long-term loss of recreational fishing. Long-term benefit to Bay fisheries from establishment of natural bay bottom and potential for creation of more productive life-cycle habitat.	Long-term loss of recreational fishing. Long-term benefit to Bay fisheries from establishment of natural bay bottom and potential for creation of more productive life-cycle habitat.	Long-term loss of recreational fishing. Long-term benefit to Bay fisheries from establishment of natural bay bottom and potential for creation of more productive life-cycle habitat.	Long-term loss of recreational fishing. Long-term benefit to Bay fisheries from establishment of natural bay bottom and potential for creation of more productive life-cycle habitat.	Long-term loss of recreational fishing. Long-term benefit to Bay fisheries from establishment of natural bay bottom and potential for creation of more productive life-cycle habitat.
Seagrasses	Long-term loss of	No short-term	No short-term	No impact	No short-term	No short-term	No short-term	No short-term	No short-term



RESOURCES	No Action Alternative	Gandy North Channel	MacDill Air Force Base Runway Extension Dredged Hole	McKay Bay Dredged Hole	Northeast St Petersburg Borrow Pit No. 1	Northshore Beach Dredged Hole	Shore Acres Dredged Hole	Whiskey Stump Key Dredged Hole No 1	Whiskey Stump Key Dredged Hole No 2
	opportunities for seagrass proliferation	adverse impact during construction  Long-term benefit to seagrasses for potential expansion of 16 acres	adverse impact during construction  Long-term benefit to seagrasses for potential expansion of 60.5 acres		adverse impact during construction  Long-term benefit to seagrasses for potential expansion of 10.9 acres	adverse impact during construction  Long-term benefit to seagrasses for potential expansion of 41 acres	adverse impact during construction  Long-term benefit to seagrasses for potential expansion of 30.4 acres	adverse impact during construction  Long-term benefit to seagrasses for potential expansion of 28.2 acres	adverse impact during construction  Long-term benefit to seagrasses for potential expansion of 31.4 acres
Historic Properties	No impact.	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	Protection of Whiskey Stump Key from erosion	Protection of Whiskey Stump Key from erosion
Aesthetics	No impact.	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
Recreation	No impact.	Long-term minor loss of fishing habitat	Long-term minor loss of fishing habitat	No Impact	Long-term minor loss of fishing habitat	Long-term minor loss of fishing habitat	Long-term minor loss of fishing habitat	Long-term minor loss of fishing habitat	Long-term minor loss of fishing habitat
Navigation	No impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
Economics	No impact.	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact

## **2.6. PREFERRED ALTERNATIVE.**

There are no preferred alternatives. All the alternatives are considered environmentally important..

## **3. AFFECTED ENVIRONMENT.**

### **3.1. INTRODUCTION.**

The Affected Environment section succinctly describes the existing environmental resources of the areas that would be affected if any of the alternatives were implemented. This section describes only those environmental resources that are relevant to the decision to be made. It does not describe the entire existing environment, but only those environmental resources that would affect or that would be affected by the alternatives if they were implemented. This section, in conjunction with the description of the "no-action" alternative forms the base line conditions for determining the environmental impacts of the proposed action and reasonable alternatives. The environmental issues that are relevant to the decision to be made are the following:

- a. Water quality.
- b. Manatees.
- c. Fisheries.
- d. Benthic organisms.
- e. Seagrasses.
- f. Historic Properties.
- g. Aesthetics.
- h. Recreation.
- i. Navigation.
- j. Economics.
- k. Safety.

### **3.2. GENERAL DESCRIPTION.**

Tampa Bay is the largest estuary on the west coast of Florida (USFWS,1984). As man developed the bay, the resources have been impacted. The Bay has been excavated for navigation purposes; islands and fast land have been created from the dredged material;

ports and residential development have encroached on the aquatic environment; and numerous effluents have been discharged into the bay.

### 3.3. RELEVANT FACTORS.

#### 3.3.1 Physical.

Tampa Bay has shallow areas along the shoreline colonized by seagrass. Historically berms along the shoreline protected the seagrasses from wind and wave action. It is not certain how these berms were formed. Tampa bay has been altered substantially throughout its history. A federal navigation channel has been constructed and maintained over the years. This has allowed the tide flushing to be concentrated in the center of the bay. Pollution from upland development has caused a decrease in water quality. Recent environmental laws and innovations in technology have improved the water quality in the bay. Causeways have restricted the tidal flushing as well. Dredging along these tidal flats has occurred and the material has been placed in the adjacent wetlands to promote residential and commercial development. The holes that were created became fish attractors and sediment sumps taking away from the seagrass communities.

##### a. Water quality.

“Dissolved oxygen (DO) is essential to aquatic invertebrates and fish. The DO levels in dredged holes may be depleted in a number of different ways. The shape and depth of dredged holes often prevents or restricts water circulation, the break down of organic matter by microbes depletes DO, and the lack of light penetration in deeper portions of dredged holes reduces plant photosynthesis (a process that produces oxygen). Therefore, DO used by biological processes, such as the breakdown of organic matter by microbes or the respiration of fish and invertebrates, is not readily replaced. In deep borrow pits, thermal stratification or temperature layers can form. Although colder water typically contains more DO, stratification can reduce the exchange of oxygen throughout the water column. If the DO content decreases greatly, organisms may experience physiological stress or even death. Pits with reduced oxygen concentrations are labeled **hypoxic** (< 4 mg/L) while those with little or no oxygen are **anoxic** (no DO). Even short periods of hypoxia or anoxia can weaken or eliminate some organisms.” (TEP 2005). “Water column stratification was not evident in 12 of the dredge holes (Table 19). Stratification was, however, especially strong, in McKay Bay (Fall 2002), St. Petersburg-Clearwater Airport West (Spring 2003), and St. Petersburg Borrow Pit B1 (Spring 2003).” (Hillsborough County EPC, 2005).

**Table 2. Comparison of dredge holes (Summer/Fall 2002-Spring 2003). Subnominal values are represented in bold type.**

DREDGE HOLE	Habitat	Stratification Index	DO (instantaneous minimum)	DO (hours < 4 ppm)	PEL Quotient	Numbers of taxa	TBBI
CYPRESS POINT	PM-PM	0.1-0.1	6.1-6.1		0.17	<b>0-7</b>	<b>53.2 – 73.3</b>
GEORGETOWN	PFS-PMS	0.1-0.1	<b>2.7-5.3</b>	<b>13.25-0.00</b>	0.07	30-47	84.4 – 88.7
MacDILL AFB RUNWAY EXTENSION	PM-PM	0.4-<0.1	6.6-5.6		0.11	15-11	79.2 – 77.3
MacDILL BEACH	ND-ND	0.4-ND	4.4-ND		0.13	7-ND	<b>72.1 -ND</b>
MacDILL DOCKS	ND-ND	<0.1-ND	2.6-ND		0.19	15-ND	80.8 -ND
McKAY BAY	PM-PM	<b>3.8-1.1</b>	<b>1.2-4.2</b>	<b>18.75-7.00</b>	0.21	<b>&lt;1-&lt;1</b>	<b>55.6 – 45.2</b>
WHISKEY STUMP KEY DREDGE HOLE 1	PM-PM	0.7-0.6	5.2-5.9		0.14	<b>2-20</b>	<b>58.2 – 83.3</b>
WHISKEY STUMP KEY DREDGE HOLE 2	PM-PM	0.5-1.2	6.1-4.1		0.17	2-19	61.8 – 84.7
NORTHSHORE BEACH	PM-PM	0.5-0.1	5.2-5.1		0.17	<b>1-5</b>	<b>60.3 – 71.1</b>
SHORE ACRES	PVFS-PVFS	0.9-0.7	5.4-5.3	<b>0.00-5.00</b>	0.08	28-38	<b>72.9 – 87.8</b>
GANDY CHANNEL	PMS-PM	0.4-0.4	<b>3.7-1.4</b>	<b>0.75-11.50</b>	0.06	50-22	88.0 – 80.1
BIG ISLAND	PM-PM	0.5-0.4	<b>2.6-3.1</b>		0.12	1-22	<b>58.1 – 72.8</b>
ST. PETERSBURG-CLEARWATER AIRPORT WEST	PM-PM	<b>1.2-3.2</b>	<b>2.9-4.9</b>		0.16	13-14	<b>77.9 – 46.6</b>
ST. PETERSBURG-CLEARWATER AIRPORT EAST	PM-PVFS	0.5-0.7	4.1-4.0		0.12	5-24	<b>70.1 – 72.8</b>
NE ST. PETERSBURG BORROW PIT B1	PM-PM	0.8-2.0	<b>3.1-0.1</b>		0.16	<b>0-1</b>	<b>53.2 – 61.9</b>
NE ST. PETERSBURG BORROW PIT B2	PFS-PM	0.4-0.5	<b>3.3-3.7</b>		0.11	<b>2-1</b>	<b>64.5 – 59.6</b>

ND= NO DATA

HABITAT KEY: P=POLYHALINE; MS=MEDIUM SAND; FS=FINE SAND; VFS=VERY-FINE SAND; M=MUD

- b. Historic Properties. Prehistoric and historic sites have been identified in the Tampa Bay vicinity. Tampa Bay has a maritime tradition dating back to a Spanish expedition in 1528 (Espey Huston, 1988). A number of wrecks have been documented for the Tampa Bay vicinity during the historic period. \

### 3.3.2. Biological

- a. Seagrasses. Five species of seagrasses are found in the Bay; turtlegrass, shoalgrass, manatee grass, widgeon grass, and *Halophila engelmannii* (Lewis, 1984). Every other year the Southwest Florida Water management District conducts aerial surveys of Tampa Bay to identify sea grasses and determine the changes that have occurred since the last overflight.

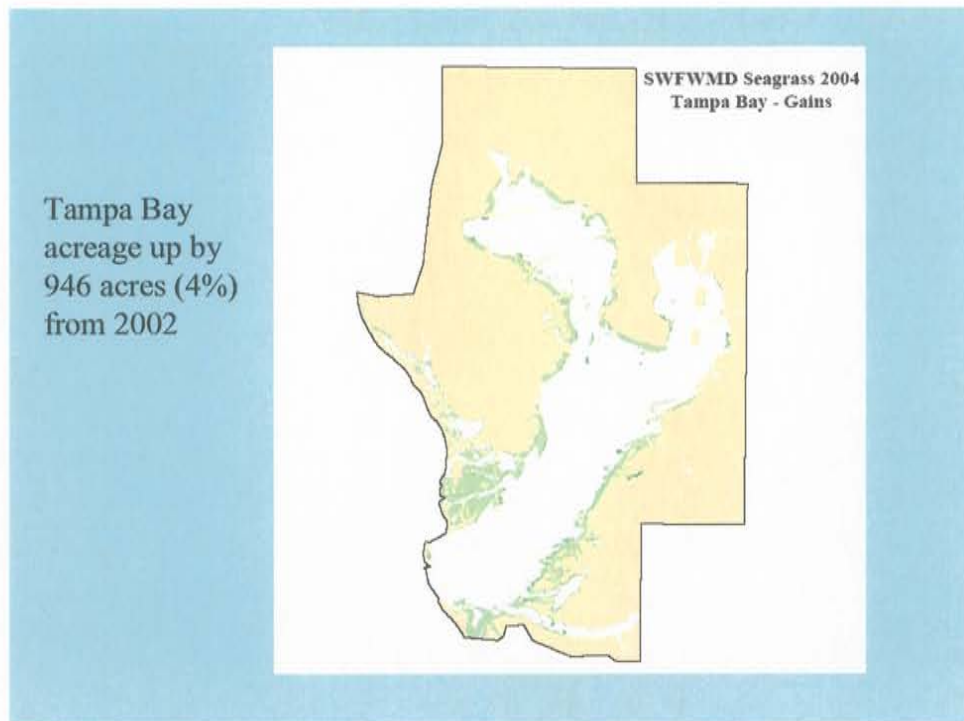


Figure 11. Seagrass gains in 2004 from 2002, SWFWMD 2005.

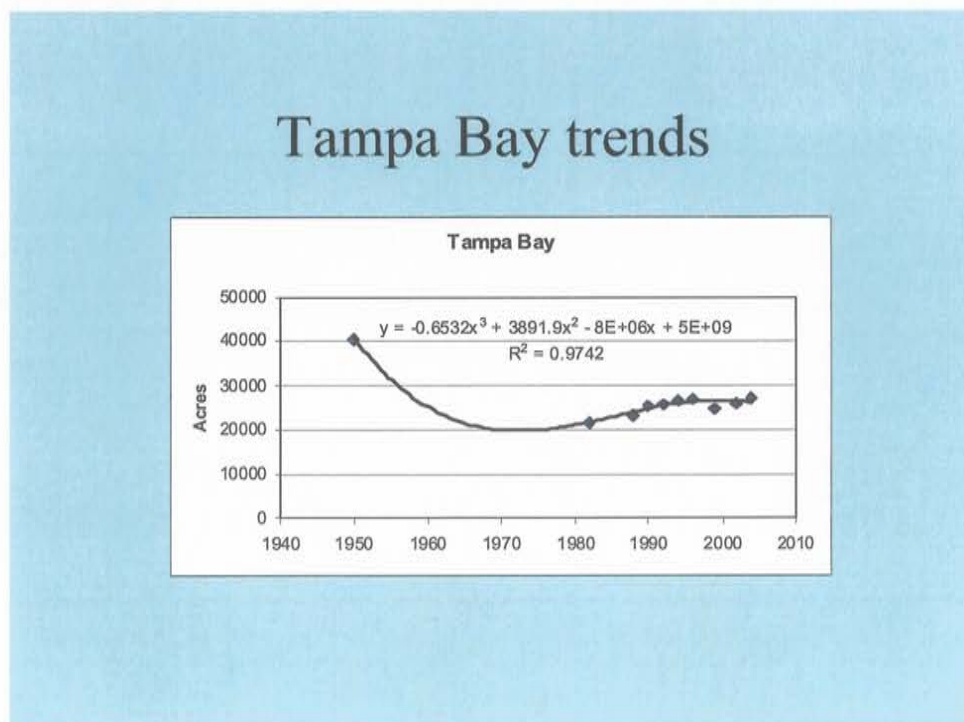


Figure 12. Seagrass trends in Tampa Bay, SWFWMD 2005



- b. Fisheries. The Tampa Estuary Program report identified the 12 most common species in their study of the dredge holes. These are listed below.

- 1) **Bay Anchovy, *Anchoa mitchilli*:** Most abundant fish in Tampa Bay; entire life cycle within the bay. Small planktivore; important in diets of larger fish. Up to 4 inches; common at 2 inches or less.
- 2) **Spot, *Leiostomus xanthurus*:** Uses Tampa Bay as nursery area but spawns offshore. Feeds on benthic organisms and serves as prey for larger fish. Also a popular pan fish. Up to 14 inches.
- 3) **Pinfish, *Lagodon rhomboides*:** Juveniles abundant in Tampa Bay, especially seagrass beds; spawns on continental shelf. Feeds on vegetation and invertebrates; important prey for larger fish. Up to 14 inches.
- 4) **Pink Shrimp, *Farfantepenaeus duorarum*:** Uses Tampa Bay as nursery area; spawns over continental shelf. Feeds at night on small invertebrates; prominent in the diet of predators such as spotted seatrout. Second most valuable commercial fishery in Florida in 2003. To more than 8 inches.
- 5) **Blue Crab, *Callinectes sapidus*:** Spends much of life in Tampa Bay; spawns over continental shelf. Feeds on wide variety of plants and animals; important in diet of many fishes. Fifth most valuable commercial fishery in Florida in 2003. Width to nearly 10 inches.
- 6) **Sand Seatrout, *Cynoscion arenarius*:** Can spend entire life within Tampa Bay; juveniles abundant in tidal rivers. Feeds on invertebrates and various fish species, especially bay anchovy. Some commercial value; common in recreational harvest. To 20 inches, but generally less than 12 inches.
- 7) **7) Silver Jenny, *Eucinostomus gula*:** Uses Tampa Bay as nursery area; spawns in nearshore marine waters. Feeds on benthic invertebrates; consumed by predatory fishes. Up to 8 inches, but usually less than 5 inches in Tampa Bay.
- 8) **Southern Kingfish, *Menticirrhus americanus*:** Uses Tampa Bay as nursery area but spawns offshore. Feeds on small invertebrates and fishes. Valuable in both commercial and recreational fisheries. To more than 16 inches, but usually smaller in Tampa Bay.
- 9) **Gulf Flounder, *Paralichthys albigutta*:** Uses Tampa Bay as nursery area; spawns in nearshore marine waters. Feeds on fishes and some

invertebrates. Valuable in both commercial and recreational fisheries. To 28 inches, but more commonly less than 17 inches.

**10) Spotted Seatrout, *Cynoscion nebulosus*:** Entire life cycle within Tampa Bay. Feeds on fish and crustaceans, especially pink shrimp. One of the most important recreational gamefish in Florida. To more than 28 inches.

**11) Red Drum, *Sciaenops ocellatus*:** Uses Tampa Bay as nursery area; spawns in nearshore marine waters. Feeds on polychaete worms, crustaceans, and fish. One of the most important recreational gamefish in Florida. To more than 40 inches.

**12) Sheepshead, *Archosargus probatocephalus*:** Uses Tampa Bay as nursery but spawns offshore. Feeds on a variety of invertebrates plus fish and some plant material. Valuable in both recreational and commercial fisheries. To more than 24 inches.

The fish in the following table were those most caught in the trawling:

Table 3. Hole Trawling Catches

Nekton Species	Common Name	Number Collected	% of Total Trawl Catch
	Bay Anchovy	286	13%
	Blue Crab	273	12%
	Code Goby	217	10%
	Pinfish	203	9%
	Pink Shrimp	144	7%

In addition the Florida Marine Institute characterized the holes as far as their fisheries value using the Fisheries-Independent Management data. The following table is a summary of that data.

c. Benthics

The predominant habitats in the dredge holes were polyhaline muds; sandy habitats were found in the Georgetown, Shore Acres, Gandy Channel North, St. Petersburg-Clearwater Airport East, and St. Petersburg Borrow Pit B2 dredge holes (Table 19).

Table 4. Comparison of dredge holes (Summer/Fall 2002-Spring 2003)

GREEN= GOOD/ACCEPTABLE  
RED=SUBNOMINAL

YELLOW=MARGINAL/AVERAGE

DREDGE HOLE	SEDIMENT TYPE	STRATIFICATION	DISSOLVED OXYGEN	SEDIMENT QUALITY	VARIETY OF ORGANISMS	BENTHIC INDEX
CYPRESS POINT	MUD	NONE	GOOD	MARGINAL	LOW	SUBNOMINAL
GEORGETOWN	FINE-MEDIUM SAND	NONE	SUBNOMINAL (FALL)	MARGINAL	HIGH	MARGINAL
MacDILL AFB RUNWAY EXTENSION	MUD	NONE	GOOD	MARGINAL	MEDIUM	MARGINAL
MacDILL BEACH	NO DATA	NONE	GOOD	MARGINAL	LOW	SUBNOMINAL (FALL)
MacDILL DOCKS	NO DATA	NONE	SUBNOMINAL (SUMMER)	MARGINAL	MEDIUM	MARGINAL (FALL)
McKAY BAY	MUD	STRATIFIED	SUBNOMINAL (FALL)	DEGRADED	LOW	SUBNOMINAL
WHISKEY STUMP KEY DREDGE HOLE 1	MUD	NONE	GOOD	MARGINAL	LOW-MEDIUM	SUBNOMINAL
WHISKEY STUMP KEY DREDGE HOLE 2	MUD	WEAK	GOOD	MARGINAL	LOW-MEDIUM	SUBNOMINAL - MARGINAL

DREDGE HOLE	SEDIMENT TYPE	STRATIFICATION	DISSOLVED OXYGEN	SEDIMENT QUALITY	VARIETY OF ORGANISMS	BENTHIC INDEX
NORTHSHORE	MUD	NONE	GOOD	MARGINAL	LOW	SUBNOMINAL
SHORE ACRES	VERY FINE SAND	NONE	GOOD	MARGINAL	MEDIUM-HIGH	MARGINAL
GANDY CHANNEL	MEDIUM SAND-MUD	NONE	SUBNOMINAL	MARGINAL	HIGH-MEDIUM	MARGINAL
BIG ISLAND CUT	MUD	NONE	SUBNOMINAL	MARGINAL	LOW-MEDIUM	SUBNOMINAL - MARGINAL
ST. PETERSBURG-CLEARWATER AIRPORT WEST	MUD	STRATIFIED	SUBNOMINAL-FALL	MARGINAL	MEDIUM	MARGINAL-SUBNOMINAL
ST. PETERSBURG-CLEARWATER AIRPORT EAST	VERY FINE SAND - MUD	NONE	GOOD	MARGINAL	LOW-MEDIUM	SUBNOMINAL - MARGINAL
ST. PETERSBURG BORROW PIT B1	MUD	STRATIFIED (SPRING)	SUBNOMINAL (FALL)/HYPOXIC (SPRING)	MARGINAL	LOW	SUBNOMINAL
ST. PETERSBURG BORROW PIT B2	FINE SAND-MUD	NONE	SUBNOMINAL	MARGINAL	LOW	SUBNOMINAL



<u>Fishery-Independent (FIM) Data</u>													
	<u>Trawls</u>								<u>Seines</u>			<u>FIM Index</u>	
	<u>CPUE</u>				<u>Unique</u>				<u>CPUE</u>		<u>Richness</u>	<u>Index</u>	<u>Rank</u>
	In	Out	In	Out	In	Out	In	Out	In	Out			
Dredge Hole													
Cypress Pt.	10	5.4	45	35	12	2		0.688		161.7	47	-0.60	6
Gandy N.	13	1.3	47	32	18	3		0.788		119.6	41	0.99	4
MacDill R.	5.8	0.7	40	24	19	5		0.593		87.09	39	-0.42	5
McKay Bay	22	6.5	36	34	8	5		0.35		366.3	31	-5.28	9
Northshore	7.6	1.3	46	34	19	8		0.641		46.04	38	-1.28	8
Shore Acres	39	0.6	44	21	23	3		0.742		258.1	43	4.34	1
St. Pete Air	17	13	40	38	10	8		0.644		23.11	32	-0.91	7
Whiskey Stump 1	25	2.6	44	37	13	7		0.71		13.19	30	1.27	2
Whiskey Stump 2	11	2.6	36	37	7	9		0.892		2.97	32	1.12	3
Big Isl. Cut	34	N/A	47	N/A	N/A	N/A		N/A		94.45	37	N/A	N/A
NE St. Pete	8.1	N/A	36	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A

1. Fishery-independent data: CPUE (animals per 100 m<sup>2</sup>), Species Richness (Total number of species/total number of trawls), and Unique Species (Total number of unique species/total number of trawls), were calculated to produce coefficients based on the ratio of inside to outside values, i.e.,

ANOSIM R values were also used as coefficients of similarity of communities inside and outside the dredge holes. As an indication of how the dredged site may fare if filled, seine data of CPUE (animals per 100 m<sup>2</sup>) and Species Richness (Total number of species/total number of seine hauls) produced coefficients that were subtracted from the trawl coefficients (since a greater value for seine coefficients would indicate that the dredge hole would be a suitable candidate for removal).

Table 5.

### **3.3.3. Social.**

- a. Aesthetics. The hole areas are along the bay shelves and are typically located in areas where there are industrial or commercial zones. The Northshore Beach area provides recreational opportunities.
- b. Recreation. Recreational activities associated with the holes are primarily linked to fishing. Boaters come to these sites with fishing as part of their recreational activities.

### **3.3.4. Economics**

- a. Navigation. Most of the holes are used by recreational boaters. The McKay Bay hole has a recreational channel linking the bay with the Palm River – Tampa Bypass canal. Other holes that provide navigation include Shore Acres, Northshore Beach and Gandy North Channel.
- b. Economics. The holes are located in open water and had been previously used for economic benefit by having a local source of construction material close by.
- c. Safety. Most of the holes are isolated from public access. However the Whiskey Stump holes and the Northshore Beach are accessible by the public and could be a safety hazard from non-swimmers falling into deeper water.

## **4 ENVIRONMENTAL CONSEQUENCES.**

### **4.1. INTRODUCTION.**

This section describes the probable consequences of implementing each alternative on selected environmental resources. These resources are directly linked to the relevant issues listed in Section 1.4 that have driven and focus the environmental analysis. The following includes anticipated changes to the existing environment including direct and indirect impacts, irreversible and irretrievable commitment of resources, unavoidable effects and cumulative impacts.

#### **4.1.1 Cumulative Impacts.**

Cumulative impact is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions (40 CFR 1508.7).

#### **4.1.2 Irreversible and Irretrievable Commitment of Resources.**

- a. Irreversible. An irreversible commitment of resources is one in which the ability to use and/or enjoy the resource is lost forever. One example of an irreversible commitment might be the mining of a mineral resource.
- b. Irretrievable. An irretrievable commitment of resources is one in which, due to decisions to manage the resource for another purpose, opportunities to use or enjoy the resource as they presently exist are lost for a period of time. An example of an irretrievable loss might be where a type of vegetation is lost due to road construction.

#### **4.2. NO ACTION ALTERNATIVE.**

##### **4.2.1 Physical.**

- a. Water Quality. There would be no impact.
- b. Historic Properties. The no action alternative will have no effect on significant historic properties.
- c. Noise. There would be no impact from this alternative.
- d. Safety. There would be a minor safety issue at Whiskey Stump Key holes and Northshore Beach from not filling the holes.

##### **4.2.2 Biological**

- a. Manatees. There would be no impacts on manatees from the no action alternative.
- b. Sea grasses. There would be a continual loss of available habitat for sea grasses.
- c. Fisheries. There would be no impact on fisheries.
- d. Benthic Organisms. There would be no impact on benthic organisms.

##### **4.2.3 Social**

- a. Aesthetics. There would be no impact.
- b. Recreation. There would be no adverse impact on recreation.

##### **4.2.4 Economic**

- a. Navigation. There would be no adverse impact.
- b. Economics. There would be a loss of storage in the traditional dredged material management areas for Tampa Bay.

#### 4.2.5 Cumulative effects.

There would be no cumulative effects from the No Action alternative.

#### 4.2.6 Unavoidable effects.

There would be no unavoidable effects from the No Action Alternative.

#### 4.2.7 Irreversible and Irretrievable Resource Commitments.

There would be no commitments made for the No Action alternative.

### **4.3. DREDGED MATERIAL PLACEMENT IN GANDY NORTH CHANNEL DREDGED HOLE**

#### 4.3.1 Physical.

- a. Water Quality. There would be a minor short-term increase in turbidity. Water quality standards set by the State of Florida would be met. A standard of 0 Ntu's would be met at the edge of the seagrass beds in the area. There would be a long-term benefit from the reduction of or potential reduction for stratification and improved water quality circulation.
- b. Historic Properties. There would be no impact to historic properties at this site.
- c. Noise. There would be no impact to noise from the presence and operation of equipment at the site due to its location at the Gandy causeway.
- d. Safety. There would be a minor increase in safety from waders along the causeway entering and exiting the waterway once it is filled.

#### 4.3.2 Biological.

- a. Manatees. There would be a minor impact on manatees from the presence and operation of equipment at this site. However, this impact would be mitigated by the implementation of the standard manatee protection conditions.
- b. Seagrasses. There would be a short-term minor impact on seagrasses from the turbidity generated at the site. This would be mitigated by requiring the

contractor to reduce turbidity levels to the state standards at the edge of the resource. There would be a long-term significant impact to seagrasses by filling the hole and allowing recolonization of seagrass beds.

- c. Fisheries. There would be a short-term impact on fisheries during the placement operation. Some fish would be attracted to the turbidity plume and the resuspension of organisms. There would be a long-term adverse impact on fisheries by eliminating the edge affect that the hole provides. However, there would be a net gain in benefits by providing long-term life-cycle habitat for smaller fish.
- d. Benthic Organisms. There would be a short-term adverse impact on benthic organism from the covering and smothering. However, these areas would quickly recolonize due to the tidal transport of organisms from adjacent areas.

#### 4.3.3 Social.

- a. Aesthetics. Minor air pollution, water turbidity, and noise pollution increases can be expected during project construction. Temporary construction impacts will not adversely affect the existing aesthetics found in the Tampa Harbor area.
- b. Recreation. There would be a short-term reduction in recreational activities along the Gandy causeway during construction. These include wading, swimming, use of personal watercraft and fishing. There would only be a long-term reduction in fishing potential at this site.

#### 4.3.4 Economic

- a. Navigation. There would be a minor disruption in the recreational vessel traffic during construction.
- b. Economics. There would be a minor short-term stimulus to the local economy from the sale of goods and services in support of the dredging. There would be a long-term benefit to the port from the extension of the useable life of the normal disposal areas.

#### 4.3.5 Cumulative effects.

There would be no cumulative effects from the disposal operations since not all holes in Tampa Bay would be filled.

#### 4.3.6 Unavoidable effects.

There would be turbidity generated at the disposal site. The deposition of material would cover the benthic organisms at the disposal site.



#### 4.3.7 Irreversible and Irretrievable Resource Commitments.

There would be no irreversible or irretrievable commitment of resources except for the expenditure of fuel for the operation.

#### **4.4. DREDGED MATERIAL PLACEMENT IN MACDILL AIR FORCE BASE RUNWAY EXTENSION DREDGED HOLE**

##### 4.4.1 Physical.

- a. **Water Quality.** There would be a minor short-term increase in turbidity. Water quality standards set by the State of Florida would be met. A standard of 0 Ntu's would be met at the edge of the seagrass beds in the area. There would be a long-term benefit from the reduction of or potential reduction for stratification and improved water quality circulation.
- b. **Historic Properties.** There would be no impact to historic properties at this site.
- c. **Noise.** There would be no impact to noise from the presence and operation of equipment at the site due to its location near the McDill Air Force Base runway.
- d. **Safety.** There would be no impact on safety.

##### 4.4.2 Biological.

- a. **Manatees.** There would be a minor impact on manatees from the presence and operation of equipment at this site. However, this impact would be mitigated by the implementation of the standard manatee protection conditions.
- b. **Seagrasses.** There would be a short-term minor impact on seagrasses from the turbidity generated at the site. This would be mitigated by requiring the contractor to reduce turbidity levels to the state standards at the edge of the resource. There would be a long-term significant impact to seagrasses by filling the hole and allowing recolonization of seagrass beds.
- c. **Fisheries.** There would be a short-term impact on fisheries during the placement operation. Some fish would be attracted to the turbidity plume and the resuspension of organisms. There would be a long-term adverse impact on fisheries by eliminating the edge affect that the hole provides. However, there would be a net gain in benefits by providing long-term life-cycle habitat for smaller fish.

- d. Benthic Organisms. There would be a short-term adverse impact on benthic organism from the covering and smothering. However, these areas would quickly recolonize due to the tidal transport of organisms from adjacent areas.

#### 4.4.3 Social.

- a. Aesthetics. Minor air pollution, water turbidity, and noise pollution increases can be expected during project construction. Temporary construction impacts will not adversely affect the existing aesthetics found in the Tampa Harbor area.
- b. Recreation. No recreational activities would be affected by the disposal operations because this is a safety/restricted area.

#### 4.4.4 Economic

- a. Navigation. There would be no impact to navigation from disposal operations at this site.
- b. Economics. There would be a minor short-term stimulus to the local economy from the sale of goods and services in support of the dredging. There would be a long-term benefit to the port from the extension of the useable life of the normal disposal areas..

#### 4.4.5 Cumulative effects.

There would be no cumulative effects from the disposal operations since not all holes in Tampa Bay would be filled.

#### 4.4.6 Unavoidable effects.

There would be turbidity generated at the disposal site. The deposition of material would cover the benthic organisms at the disposal site.

#### 4.4.7 Irreversible and Irretrievable Resource Commitments.

There would be no irreversible or irretrievable commitment of resources except for the expenditure of fuel for the operation.

### **4.5. DREDGED MATERIAL PLACEMENT IN MCKAY BAY DREDGED HOLE**

#### 4.5.1 Physical.

- a. Water Quality. There would be a minor short-term increase in turbidity. Water quality standards set by the State of Florida would be met. There would be

a long-term benefit from the reduction of or potential reduction for stratification, capping of contaminated sediments and improved water quality circulation.

b. Historic Properties. There would be no impact to historic properties at this site.

c. Noise. There would be no impact to noise from the presence and operation of equipment at the site due to its location near the incineration plant.

d. Safety. There would be no impact on safety.

#### 4.5.2 Biological.

a. Manatees. There would be a minor impact on manatees from the presence and operation of equipment at this site. However, this impact would be mitigated by the implementation of the standard manatee protection conditions.

b. Seagrasses. There would be no impact on seagrasses at this site.

c. Fisheries. There would be no adverse impact on the life stages of any fisheries at this site. The recreational fishing potential at this site would be reduced.

d. Benthic Organisms. There would be a short-term adverse impact on benthic organism from the covering and smothering. However, these areas would quickly recolonize due to the tidal transport of organisms from adjacent areas.

#### 4.5.3 Social.

a. Aesthetics. Minor air pollution, water turbidity, and noise pollution increases can be expected during project construction. Temporary construction impacts will not adversely affect the existing aesthetics found in the Tampa Harbor area.

b. Recreation. Recreational boating could be affected by the proposed filling since a recreational navigation channel is located adjacent to the hole. The design will avoid filling this channel.

#### 4.5.4 Economic

a. Navigation. The proposed work will result in some temporary disruption of normal vessel traffic in the channel.

b. Economics. There would be a minor short-term stimulus to the local economy from the sale of goods and services in support of the dredging. There would be a

long-term benefit to the port from the extension of the useable life of the normal disposal areas.

#### 4.5.5 Cumulative effects.

There would be no cumulative effects from the disposal operations since not all holes in Tampa Bay would be filled.

#### 4.5.6 Unavoidable effects.

There would be turbidity generated at the disposal site. The deposition of material would cover the benthic organisms at the disposal site.

#### 4.5.7 Irreversible and Irretrievable Resource Commitments.

There would be no irreversible or irretrievable commitment of resources except for the expenditure of fuel for the operation.

### **4.6. DREDGED MATERIAL PLACEMENT IN NORTHEAST ST. PETERSBURG BORROW PIT 1**

#### 4.6.1 Physical.

a. Water Quality. There would an overall improvement in water quality from the placement of material in this borrow pit. The raising of the bottom elevation would reduce stratification..

b. Historic Properties. There would be no impact on historic properties from placing material at this site.

c. Noise. There would be a short-term impact on the residential housing surrounding the placement at this site during construction. It would mostly be derived from equipment moving pipelines around and to the site. This would occur mostly during the daylight hours.

d. Safety. There would be no impacts on safety from this placement.

#### 4.6.2 Biological.

a. Manatees. There would be a minor impact on manatees from the presence and operation of equipment at this site. However, this impact would be mitigated by the implementation of the standard manatee protection conditions.

b. Seagrasses. Laying of the pipeline to the site could impact seagrasses. However, prior to the placement by the contractor, seagrasses will be identified and avoided.

- c. Fisheries. There would be no impact on fisheries life cycles. There would be a short-term adverse impact on freshwater fisheries in the pit. The fish would likely be killed from the inflow of saltwater. Some species would be tolerant of the increased salinity but others would die.
- d. Benthic Organisms. There would be a short-term adverse impact on benthic organism from the covering and smothering. They would eventually recolonize even though there is no water body for easy transport to the site.

#### 4.6.3 Social.

- a. Aesthetics. Minor air pollution, water turbidity, and noise pollution increases can be expected during project construction.
- b. Recreation. No recreational activities would be affected by the disposal operations. .

#### 4.6.4 Economic

- a. Navigation. The proposed work will result in some temporary disruption of normal vessel traffic along the pipeline route.
- b. Economics. There would be a minor short-term stimulus to the local economy from the sale of goods and services in support of the disposal operation. There would be a long-term benefit to the port from the extension of the useable life of the normal disposal areas.

#### 4.6.5 Cumulative effects.

There would be no cumulative effects from this disposal operation.

#### 4.6.6 Unavoidable effects.

There would be a fish kill associated with the increased salinity. The disposal of the material would cover benthic organisms within the pit.

#### 4.6.7 Irreversible and Irretrievable Resource Commitments.

There would be no irreversible or irretrievable commitment of resources except for the expenditure of fuel for the operation.

#### **4.7. DREDGED MATERIAL PLACEMENT IN NORTHSORE BEACH DREDGED HOLE**

##### **4.7.1 Physical.**

- a. **Water Quality.** There would be a minor short-term increase in turbidity. Water quality standards set by the State of Florida would be met. A standard of 0 Ntu's would be met at the edge of the seagrass beds in the area. There would be a long-term benefit from the reduction of or potential reduction for stratification and improved water quality circulation.
- b. **Historic Properties.** There would be no impact to historic properties at this site.
- c. **Noise.** There would be a minor impact to noise from the presence and operation of equipment at the recreation site.
- d. **Safety.** There would be a minor increase in safety to waders along the beach entering and exiting the waterway once it is filled.

##### **4.7.2 Biological.**

- a. **Manatees.** There would be a minor impact on manatees from the presence and operation of equipment at this site. However, this impact would be mitigated by the implementation of the standard manatee protection conditions.
- b. **Seagrasses.** There would be a short-term minor impact on seagrasses from the turbidity generated at the site. This would be mitigated by requiring the contractor to reduce turbidity levels to the state standards at the edge of the resource. There would be a long-term significant impact to seagrasses by filling the hole and allowing recolonization of seagrass bed.
- c. **Fisheries.** There would be a short-term impact on fisheries during the placement operation. Some fish would be attracted to the turbidity plume and the resuspension of organisms. There would be a long-term adverse impact on fisheries by eliminating the edge affect that the hole provides. However, there would be a net gain in benefits by providing long-term life-cycle habitat for smaller fish.
- d. **Benthic Organisms.** There would be a short-term adverse impact on benthic organism from the covering and smothering. However, these areas would quickly recolonize due to the tidal transport of organisms from adjacent areas

#### 4.7.3 Social.

- a. Aesthetics. Minor air pollution, water turbidity, and noise pollution increases can be expected during project construction. Temporary construction impacts will not adversely affect the existing aesthetics found in the Tampa Harbor area.
- b. Recreation. There would be a short-term reduction in recreational activities along the beach during construction. These include wading, swimming, use of personal watercraft and fishing. There would only be a long-term reduction in fishing potential at this site.

#### 4.7.4 Economic

- a. Navigation. The proposed work will result in some temporary disruption of normal vessel traffic along the pipeline route.
- b. Economics. There would be a minor short-term stimulus to the local economy from the sale of goods and services in support of the disposal operation. There would be a long-term benefit to the port from the extension of the useable life of the normal disposal areas.

#### 4.7.5 Cumulative effects.

There would be no cumulative effects from the disposal operations since not all holes in Tampa Bay would be filled.

#### 4.7.6 Unavoidable effects.

There would be turbidity generated at the disposal site. The deposition of material would cover the benthic organisms at the disposal site.

#### 4.7.7 Irreversible and Irretrievable Resource Commitments.

There would be no irreversible or irretrievable commitment of resources except for the expenditure of fuel for the operation.

### **4.8. DREDGED MATERIAL PLACEMENT IN SHORE ACRES DREDGED HOLE**

#### 4.8.1 Physical.

- a. Water Quality. . There would be a minor short-term increase in turbidity. Water quality standards set by the State of Florida would be met. A standard of 0 Ntu's would be met at the edge of the seagrass beds in the area. There would be a long-term benefit from the reduction of or potential reduction for stratification and improved water quality circulation.

- b. Historic Properties.** There would be no impact to historic properties at this site.
- a. Noise.** There would be a minor impact to noise from the presence and operation of equipment at the recreation site.
- d. Safety.** There would be a minor increase in safety to waders along the beach entering and exiting the waterway once it is filled.

#### 4.8.2 Biological.

- a. Manatees.** There would be a minor impact on manatees from the presence and operation of equipment at this site. However, this impact would be mitigated by the implementation of the standard manatee protection conditions.
- b. Seagrasses.** There would be a short-term minor impact on seagrasses from the turbidity generated at the site. This would be mitigated by requiring the contractor to reduce turbidity levels to the state standards at the edge of the resource. There would be a long-term significant impact to seagrasses by filling the hole and allowing recolonization of seagrass bed.
- c. Fisheries.** There would be a short-term impact on fisheries during the placement operation. Some fish would be attracted to the turbidity plume and the resuspension of organisms. There would be a long-term adverse impact on fisheries by eliminating the edge affect that the hole provides. However, there would be a net gain in benefits by providing long-term life-cycle habitat for smaller fish.
- d. Benthic Organisms.** There would be a short-term adverse impact on benthic organism from the covering and smothering. However, these areas would quickly recolonize due to the tidal transport of organisms from adjacent areas.

#### 4.8.3 Social.

- a. Aesthetics.** Minor air pollution, water turbidity, and noise pollution increases can be expected during project construction. Temporary construction impacts will not adversely affect the existing aesthetics found in the Tampa Harbor area.
- b. Recreation.** There would be a short-term reduction in recreational activities along the beach during construction. These include wading, swimming, use of personal watercraft and fishing. There would only be a long-term reduction in fishing potential at this site.



#### 4.8.4 Economic

- a. Navigation. The proposed work will result in some temporary disruption of normal vessel traffic along the pipeline route.
- b. Economics. There would be a minor short-term stimulus to the local economy from the sale of goods and services in support of the disposal operation. There would be a long-term benefit to the port from the extension of the useable life of the normal disposal areas.

#### 4.8.5 Cumulative effects.

There would be no cumulative effects from the disposal operations since not all holes in Tampa Bay would be filled.

#### 4.8.6 Unavoidable effects.

There would be turbidity generated at the disposal site. The deposition of material would cover the benthic organisms at the disposal site.

#### 4.8.7 Irreversible and Irretrievable Resource Commitments.

There would be no irreversible or irretrievable commitment of resources except for the expenditure of fuel for the operation.

### **4.9. DREDGED MATERIAL PLACEMENT IN WHISKEY STUMP KEY DREDGED HOLE NO.1**

#### 4.9.1 Physical.

- a. Water Quality. . There would be a minor short-term increase in turbidity. Water quality standards set by the State of Florida would be met. A standard of 0 Ntu's would be met at the edge of the seagrass beds in the area. There would be a long-term benefit from the reduction of or potential reduction for stratification and improved water quality circulation.
- b. Historic Properties. There would be no impact to historic properties at this site.
- c. Noise. There would be a minor impact to noise from the presence and operation of equipment at the recreation site.
- d. Safety. There would be a minor increase in safety to waders along the beach entering and exiting the waterway once it is filled.

#### 4.9.2 Biological.

- a. Manatees. There would be a minor impact on manatees from the presence and operation of equipment at this site. However, this impact would be mitigated by the implementation of the standard manatee protection conditions.
- b. Seagrasses. There would be a short-term minor impact on seagrasses from the turbidity generated at the site. This would be mitigated by requiring the contractor to reduce turbidity levels to the state standards at the edge of the resource. There would be a long-term significant impact to seagrasses by filling the hole and allowing recolonization of seagrass bed.
- c. Fisheries. There would be a short-term impact on fisheries during the placement operation. Some fish would be attracted to the turbidity plume and the resuspension of organisms. There would be a long-term adverse impact on fisheries by eliminating the edge affect that the hole provides. However, there would be a net gain in benefits by providing long-term life-cycle habitat for smaller fish.
- d. Benthic Organisms. There would be a short-term adverse impact on benthic organism from the covering and smothering. However, these areas would quickly recolonize due to the tidal transport of organisms from adjacent area

#### 4.9.3 Social.

- a. Aesthetics. Minor air pollution, water turbidity, and noise pollution increases can be expected during project construction. Temporary construction impacts will not adversely affect the existing aesthetics found in the Tampa Harbor.
- b. Recreation. No recreational activities would be affected by the dredging or disposal operations. The increased navigable capacity of this harbor would provide for major recreational benefits derived from cruise ships using the port.

#### 4.9.4 Economic

- a. Navigation. There would be a minor disruption in the recreational vessel traffic during construction.
- b. Economics. There would be a minor short-term stimulus to the local economy from the sale of goods and services in support of the placement. There would be a long-term benefit to the port from the extension of the useable life of the normal disposal areas.

#### 4.9.5 Cumulative effects.

There would be no cumulative effects from the disposal operations since not all holes in Tampa Bay would be filled.

#### 4.9.6 Unavoidable effects.

There would be turbidity generated at the disposal site. The deposition of material would cover the benthic organisms at the disposal site.

#### 4.9.7 Irreversible and Irretrievable Resource Commitments.

There would be no irreversible or irretrievable commitment of resources except for the expenditure of fuel for the operation.

### **4.10. DREDGED MATERIAL PLACEMENT IN WHISKEY STUMP KEY DREDGED HOLE NO.2**

#### 4.10.1 Physical.

- a. Water Quality. . There would be a minor short-term increase in turbidity. Water quality standards set by the State of Florida would be met. A standard of 0 Ntu's would be met at the edge of the seagrass beds in the area. There would be a long-term benefit from the reduction of or potential reduction for stratification and improved water quality circulation.
- b. Historic Properties. There would be no impact to historic properties at this site.
- c. Noise. There would be a minor impact to noise from the presence and operation of equipment at the recreation site.
- d. Safety. There would be a minor increase in safety to waders along the beach entering and exiting the waterway once it is filled.

#### 4.10.2 Biological.

- a. Manatees. There would be a minor impact on manatees from the presence and operation of equipment at this site. However, this impact would be mitigated by the implementation of the standard manatee protection conditions.

- b. Seagrasses. There would be a short-term minor impact on seagrasses from the turbidity generated at the site. This would be mitigated by requiring the contractor to reduce turbidity levels to the state standards at the edge of the resource. There would be a long-term significant impact to seagrasses by filling the hole and allowing recolonization of seagrass bed.
- c. Fisheries. There would be a short-term impact on fisheries during the placement operation. Some fish would be attracted to the turbidity plume and the resuspension of organisms. There would be a long-term adverse impact on fisheries by eliminating the edge affect that the hole provides. However, there would be a net gain in benefits by providing long-term life-cycle habitat for smaller fish.
- d. Benthic Organisms. There would be a short-term adverse impact on benthic organism from the covering and smothering. However, these areas would quickly recolonize due to the tidal transport of organisms from adjacent area

#### 4.10.3 Social.

- a. Aesthetics. Minor air pollution, water turbidity, and noise pollution increases can be expected during project construction. Temporary construction impacts will not adversely affect the existing aesthetics found in the Tampa Harbor.
- b. Recreation. No recreational activities would be affected by the dredging or disposal operations. The increased navigable capacity of this harbor would provide for major recreational benefits derived from cruise ships using the port.

#### 4.10.4 Economic

- a. Navigation. There would be a minor disruption in the recreational vessel traffic during construction.
- b. Economics. There would be a minor short-term stimulus to the local economy from the sale of goods and services in support of the disposal. There would be a long-term benefit to the port from the extension of the useable life of the normal disposal areas.

#### 4.10.5 Cumulative effects.

There would be no cumulative effects from the disposal operations since not all holes in Tampa Bay would be filled.

#### **4.10.6 Unavoidable effects.**

There would be turbidity generated at the disposal site. The deposition of material would cover the benthic organisms at the disposal site.

#### **4.10.7 Irreversible and Irretrievable Resource Commitments.**

There would be no irreversible or irretrievable commitment of resources except for the expenditure of fuel for the operation.

#### 4 LIST OF PREPARERS

<u>NAME</u>	<u>DISCIPLINE</u>	<u>EXPERIENCE</u>	<u>ROLE IN PREPARING EA</u>
William J. Fonferek	Biologist	21 years environmental impacts assessment	O&M NEPA Coordinator, Environmental Impact Assessment, Endangered Species Coordination
Tommy Birchett	Archeologist	21 years experience NEPA documentation	Cultural Resources Analysis
Paul Karch	Civil Engineer		Water Quality Impacts



## **5 CONSULTATION WITH OTHERS - PUBLIC INVOLVEMENT PROCESS.**

In order to comply with the National Environmental Policy Act implementing regulation 33 CFR 335 through 338, a public notice (PN-CO-TH-271) dated 24 August 2004 was issued requesting comments on the proposed work. No comments were received.

### **5.1. TAMPA BAYWATCH.**

The Tampa Baywatch, headed by Capt. Peter Clark, prepared a report entitled Prioritizing Habitat Restoration Sites in the Tampa Bay Region, Workshop Summary, July 25, 1997. Included in that report were projects that could require fill material to accomplish the restoration. That report was used to generate this beneficial uses of dredged material proposal.

### **5.2. THE TAMPA ESTUARY PROGRAM (TEP) HOLE ASSESSMENT STUDY.**

In 2003, the TEP convened a group of scientists from the local area to study the holes in Tampa Bay. Due to the limited funds available only a portion (11 out of 22) of the man-made holes were included in the study. Information on fisheries, sediment contamination, water quality, and benthics were included in the report. Later into the studies, the focus of the study was also to recommend management decisions about what to do with the holes. Intense pressure was put on the group from fisherman to not do nothing as the holes were considered fishing places. In addition, the survey techniques came into question because sampling was not consistent between types of habitat. Comparisons were made between differing habitats biasing the data. Valuations between holes were made with no standard set for these values. The holes were then ranked according to the assigned values. Because no standards were used, a determination could not be made if the holes had a low or high relative value. The Corps determined that it could not agree with the management recommendations because the Corps NEPA standards were not met. The District Engineer must take into consideration more factors concerning the public interest than fisheries, water quality, sediment contamination and benthic habitat. The studies did provide important information which was used in the decision making process. The only hole the TEP report recommended filling was the McKay Bay Hole.

### **5.3. THE AGENCY ON BAY MANAGEMENT.**

Filling of holes was discussed numerous times at the Agency on Bay Management. Of the holes studied, the Whiskey Stump Key holes were of most concern due to the Alafia River Navigation project application for a water quality certification from the State of Florida being eminent. At different times, either the Habitat Restoration/ EIS Review Committee or the full Agency on Bay Management would vote on the issue to fill or not fill holes. The vote would vary depending on those in attendance. There were opponents to filling the holes as well as proponents. The basic issue is what is the value and to whom. The holes are recognized as fishing spots and fish are attracted to any kind of relief. On the contrary, the holes are unnatural holes in the shallows where seagrasses have once flourished. Filling the holes would provide potential restoration opportunities for seagrasses. Of the 22 holes/pits proposed for restoration, only 8 have been proposed for use as a beneficial use of dredged material sites as a federal standard.

## **6. COMMITMENTS.**

### **6.1. WATER QUALITY.**

State water quality standards will be met. If seagrasses are present, they will be protected from turbidity and sedimentation.

### **6.2. THREATENED AND ENDANGERED SPECIES.**

The standard manatee protection condition would be implemented during construction.

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# APPENDIX I

## SECTION 404 (B) (1) EVALUATION

## **SECTION 404(b)(1) EVALUATION DREDGED MATERIAL**

### **I. Project Description**

a. Location. Numerous dredged holes, Tampa Bay, Hillsborough and Pinellas Counties, Florida.

b. General Description. The Corps is proposing to place dredged material from the maintenance of Tampa Harbor into former dredged holes in the flats along the shoreline of Tampa Bay.

c. Authority and Purpose. This project is authorized under Section 204 of the Water Resources Development Act of 1992 and the Rivers and Harbors Act of December 31, 1970, House Document 401, 91<sup>st</sup> Congress, 2<sup>nd</sup> Session. Pursuant to Section 204 of the Water Resources Development Act of 1992, the US Army Corps of Engineers was delegated the authority to look for opportunities for using dredged material in a way beneficial to the aquatic environment. The Tampa Baywatch, inc., presented this proposal to the Corps for consideration. The purpose of this project is to restore former holes that could potentially be re-colonized by sea grasses.

#### **d. General Description of Dredged or Fill Material**

(1) General Characteristics of Material. The excavated material to be placed in the pits would be pre-Colombian material from the Tampa Bay bottom.

(2) Quantity of Material. Various quantities up to 900,000 of dredged material will be placed in the each of six holes.

(3) Source of Material. The material will be excavated from the Bay bottom from Tampa Harbor maintenance.

#### **e. Description of the Proposed Discharge Site.**

(1) Size and Location. The placement areas are located throughout Tampa Bay near the Tampa Harbor channels. They include the following :

- a) Gandy North Channel Dredged Hole. The proposed work would consist of the maintenance dredging of Tampa Harbor Navigation Project and the placement of approximately 842,000 cubic yards of material in the hole to bring it within 3 feet of the water surface elevation to promote seagrass growth.



- b) MacDill Air Force Base Runway Extension Dredged Hole. This hole has been partially filled by a previous maintenance dredging and placement event in 2000. It is located immediately adjacent to sea grass beds. Silt curtains and a flocculent were used to protect the sea grasses. Approximately 426,000 cubic yards of material will be placed in the hole to bring it to within 3 feet of the water surface elevation to promote sea grass growth.
  - c) McKay Bay Hole. Approximately 891,000 cubic yards of material will be placed in the hole to bring it to within 3 feet of the water surface elevation to promote sea grass growth and reduce hypoxia.
  - d) Northshore Beach Dredged Hole. Approximately 441,000 cubic yards of material will be placed in the hole to bring it to within 3 feet of the water surface elevation to promote sea grass growth and reduce hypoxia.
  - e) Shore Acres Dredged Hole. Approximately 312,000 cubic yards of material will be placed in the hole to bring it to within 3 feet of the water surface elevation to promote sea grass growth and reduce hypoxia.
  - f) Whiskey Stump Key Dredged Hole No.1. Approximately 207,000 cubic yards of material will be placed in the hole to bring it to within 3 feet of the water surface elevation to promote sea grass growth and reduce hypoxia.
  - g) Whiskey Stump Key Dredged Hole No. 2. Approximately 245,000 cubic yards of material will be placed in the hole to bring it to within 3 feet of the water surface elevation to promote sea grass growth and reduce hypoxia.
- (2) Type of Site. The sites are former dredging areas where material was borrowed from shallow-water bay bottoms for construction purposes. Some of these areas were vegetated with sea grasses.
- (3) Type of Habitat. They currently are sediment traps with poor water quality. Since these holes have relief along the edges fish congregate along these edges and feed on organisms and smaller fish entering the holes.
- (4) Timing and Duration of Discharge. The total dredging and placement episode will last approximately 6 months.

f. Description of Disposal Method. The maintenance would likely be conducted with a hopper dredge or by clamshell and barged to a pump-out facility and pumped via pipeline to the pits.

## II. Factual Determinations

### a. Physical Substrate Determinations.

(1) Substrate Elevation and Slope. The substrate elevations within the holes are about 10 feet MLW with surrounding elevations at about 3 feet MLW.

(2) Sediment Type. The pits contain a silty substrate with some organic matter.

(3) Dredged/Fill Material Movement. The dredged material would be confined within the holes. The shallow bay bottom has little tidal movement.

(4) Physical Effects on Benthos. Placement will result in the loss of benthic organisms at the placement sites.

(5) Other Effects. Not applicable.

(6) Actions Taken to Minimize Impacts. None are applicable.

### b. Water Circulation, Fluctuation and Salinity Determinations

#### (1) Water

(a) Salinity. Not applicable.

(b) Water Chemistry. There would be improved water quality at each site.

(c) Clarity. There will be a temporary increase in turbidity in the holes.

(d) Color. Due to the minor silt content, there will be a brown turbidity plume associated with the discharge operations.

(e) Odor. There would be no odor problems associated with the dredged material since the material contains few organics.

(f) Taste. Not applicable.

(g) Dissolved Gas Levels. There would be improved water quality at the site from the increased dissolved oxygen levels.

(h) Nutrients. The material to be discharged is mainly sand with shell fragment, therefore no nutrients would be bound in the material and no release of nutrients would be anticipated.

(i) Eutrophication. No eutrophication is anticipated.

(2) Current Patterns and Circulation. There would be no change in current or circulation patterns..

(3) Normal Water Level Fluctuations. Not applicable.

(4) Salinity Gradients. No change.

(5) Actions That Will Be Taken to Minimize Impacts. The disposal site will be operated to maintain state water quality standards.

c. Suspended Particulate/Turbidity Determinations

(1) Expected Changes in Suspended Particulate and Turbidity Levels in Vicinity of Disposal Site. No changes are anticipated because the dredged material is sandy material containing few fines.

(2) Effects (degree and duration) on Chemical and Physical values

(a) Light penetration. Light penetration would be reduced during disposal operations. This would be short-term in duration and would not cause any significant adverse effects. Long-term benefits to local environment from improved water quality and increased light penetration.

(b) Dissolved Oxygen. There would be an increase in dissolved oxygen levels in the holes from the discharge of the dredged material.

(c) Toxic Metals and Organics. No toxic materials are anticipated to be encountered.

(d) Pathogens. Not Applicable.

(e) Aesthetics. There will be an increase in noise levels and aesthetic degradation from the presence and operation of dredging equipment and the construction equipment.

(f) Others as Appropriate. None.

(3) Effects on Biota (consider environmental values in Sections 230.21, as appropriate)

(a) Primary Production, Photosynthesis. There would be increased primary productivity at the site from the increase in shallow water habitat created.

(b) Suspension/Filter Feeders. Little or no impact is expected.

(c) Sight Feeders. Larger fish would move to areas of bottom relief.

(4) Actions taken to Minimize Impacts. None required.

d. Contaminant Determinations. No contaminants have been previously encountered and therefore none are anticipated.

e. Aquatic Ecosystem and Organism Determinations

(1) Effects on Plankton. No significant effects.

(2) Effects on Benthos. No significant benthic populations are located in the disposal site and therefore no significant adverse impacts are anticipated.

(3) Effects on Nekton. None are anticipated.

(4) Effects on Aquatic Food Web. There would potential increase in seagrass beds from the shallowing on the bottom.

(5) Effects on Special Aquatic Sites.

(a) Sanctuaries and Refuges. No impact.

(b) Wetlands. No impact.

(c) Mud Flats. No impact.

(d) Vegetated Shallows. Increased of shallows that could be vegetated.

(e) Coral Reefs. Not applicable.

(f) Riffle and Pool Complexes. Not applicable.

(6) Threatened and Endangered Species. None would be affected.

(7) Other Wildlife. Not applicable.

(8) Actions to Minimize Impacts. No actions are necessary.

f. Proposed Disposal Site Determinations

(1) Mixing Zone Determination. No mixing will likely occur due to the sandy nature of the dredged material, the shallow water and the small quantity of fines associated with the material.

(2) Determination of Compliance with Applicable Water Quality Standards. Water quality certification has been issued by the State of Florida. Monitoring of the discharge site will be conducted to insure State standards met.

(3) Potential Effects on Human Use Characteristic

(a) Municipal and Private Water Supply. Not applicable.

(b) Recreational and Commercial Fisheries. There would be a loss of recreational fishing along these areas of relief.

(c) Water Related Recreation. Not applicable.

(d) Aesthetics. The proposed discharge would increase noise and scenic degradation along the Bay front during disposal operations.

(e) Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves. There would be no impact.

g. Determination of Cumulative Effects on the Aquatic Ecosystem. Since the bottom substrate is silty, the placement of an irregular sandy substrate would provide additional diversity to the area.

h. Determination of Secondary Effects on the Aquatic Ecosystem. Not applicable.

## **APPENDIX II**

### **ENDANGERED SPECIES CONSULTATION**



CESAJ-PD-EG

22 September 2005

MEMORANDUM FOR Record

SUBJECT: No Effects Determination for Filling Holes in Tampa Bay, Florida

I have reviewed the proposed restoration work and have determined that it would not impact any species listed or proposed for listing as threatened or endangered by the US Fish and Wildlife Service or National Marine Fisheries Service.

A handwritten signature in black ink, appearing to read 'Fonferik', is positioned above the printed name.

WILLIAM J. FONFEREK  
Biologist, Environmental Branch

## APPENDIX III

### COORDINATION



**DEPARTMENT OF THE ARMY**  
**JACKSONVILLE DISTRICT CORPS OF ENGINEERS**  
**P. O. BOX 4970**  
**JACKSONVILLE, FLORIDA 32232-0019**  
**August 24, 2004**

Construction-Operations Division  
Public Notice NO. PN-CO-TH-271

**PUBLIC NOTICE**  
**MAINTENANCE DREDGING OF TAMPA HARBOR**

TO WHOM IT MAY CONCERN: Under authority delegated from the Secretary of the Army, and in accordance with 33 CFR (Parts 335 through 338) and section 404 of the Clean Water Act of 1977 (CWA) and section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 hereinafter referred to as the Ocean Dumping Act (ODA), the District Engineer is required to coordinate public input regarding Operation & Maintenance of Civil Works Projects. The Corps of Engineers undertakes operations and maintenance activities where appropriate and environmentally acceptable. Accordingly, this public notice addresses the continued maintenance dredging activities for the federal navigation project for Tampa Harbor.

Comments regarding the project should be submitted in writing to the District Engineer at the above address within 30 days of the date of this notice. Any person who has an interest that may be affected by the construction of this project may request a public hearing. The request must be submitted in writing to the District Engineer within 30 days of the date of this notice and must clearly set forth the interest, which may be affected, and the manner in which the interest may be affected by this activity.

If you have any questions concerning this application, you may contact Ms. Patricia Hanson of my staff at 904-232-1640. Her

E-mail address is [www.patricia.a.hanson@usace.army.mil](mailto:www.patricia.a.hanson@usace.army.mil).

WATERWAY & LOCATION: Tampa Harbor, Hillsborough County, Florida

**BACKGROUND:** Currently, the various reaches of Tampa Harbor are addressed under several Department of Environmental Protection (DEP) Water Quality Certifications (WQC). Although the WQCs for Alafia and Hillsborough Bay have technically expired, dredging has been able to continue under Florida Statute 120.60(6). This statute has allowed the extension of an existing WQC where an application for a new WQC was submitted prior to its expiration date. In 1999 an application was submitted for a new WQC for Alafia. In January 2000, with concurrence from DEP, a new application was submitted for a combined WQC for all of Tampa Harbor including Alafia. Table I lists the current and recent WQCs applicable to Tampa Harbor Maintenance Dredging. The new WQC application combines all the existing coverage and it is anticipated that DEP will issue it in the fall of 2004.

TABLE I ~ CURRENT AND RECENT WQC					
Reach			WQC	Date Issued	Date Expires
Main Ship Channel	Egmont Bar		#292275789	18 Sep 1995	18 Sep 2005
	Mullet Key Channel				
	Tampa Bay	Cut A		No Recent Permit	
		Cuts B ~ E			
Cut F		#291664149	11 Apr 1990	11 Apr 2000	
Port Tampa	Cut G		#291664149	11 Apr 1990	11 Apr 2000
	Cuts J, J2 & K		#522363069	26 Feb 1996	26 Feb 2006
Hillsborough Bay Channels	Gadsden Point Cut & Cuts A, C & D		#291664149	11 Apr 1990	11 Apr 2000
Hillsborough Bay Branch Channels	Sparkman				
	Ybor				
	Alafia		#291318359	17 Jul 1989	17 Jul 1999
	Pt Sutton East Bay		#291664149	11 Apr 1990	11 Apr 2000
	Sedden		No Recent Permit		

**WORK & PURPOSE:** The purpose of maintenance dredging is to insure safe navigation by restoring the authorized constructed project depths to the federally channels for Tampa Harbor. The channel locations are shown on PN CHANNEL DRAWING NO. 1 ~ 11 (Enclosure 1). Table II lists the Constructed, Authorized and Maintained depths for Tampa Harbor.

TABLE II ~ TAMPA HARBOR CHANNEL DEPTHS				
Channel Segment	Length	Depths (Ft. MLLW)		
	Miles	Constructed	Authorized	Maintained
Main Ship Channel				
Egmont Bar Channel	15.21	45	45	45
Mullet Key Channel & Cuts A ~ F	20.02	43	43	43
Port Tampa				
Cuts G, J1, J2 & K	8.33	34	41	34
Hillsborough Bay Main				
Gadsden Point Cut, Cuts A & C	11.53	43	43	43
Cut D	1.35	41	41	41
Hillsborough Bay Branch Channels				
Sparkman ~ Lower	0.80	41	41	41
Sparkman ~ Upper	0.68	34	34	34
Ybor	1.47			
Alafia	3.44	32	32	32
Pt Sutton	0.8	43	43	43
East Bay	2.25	34	34	34
Sedden	0.8	41	41	41

Maintenance dredging in Tampa Harbor occurs on a yearly basis for one or more reaches of the project. Table III lists the average dredging frequency for each reach over a ten-year period.

Dredged Material Placement: For placement of the dredged material, one or more of the following options are available: ocean, upland, beach and open water. The placement area locations are shown on PN D/A DRAWING NO. 1 ~ 4 (Enclosure 2).

Ocean Disposal: The ocean disposal site is the Environmental Protection Administration (EPA) designated Ocean Dredged Material Disposal Site (ODMDS) for Tampa Harbor. It is located approximately 5 miles west of Anna Maria Key.

Upland Disposal Areas (D/A): The D/As consist of sites A, B, C, 2D, and 3D. These sites are almost full and will require dike raising to allow long term continued use.

TABLE III DREDGING FREQUENCY										
FEATURE	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14
TAMPA BAY Frequency 7 Yrs	X							X		
LOWER HILLSBOROUGH BAY Gadsden Cut, Cut A and Cut C (partial) Frequency 3 Yrs	X			X			X			X
UPPER HILLSBOROUGH BAY Cut C (remainder), Cut D Frequency 3 Yrs		X			X			X		
PORT TAMPA Frequency 7 Yrs					X					
HILLSBOROUGH BAY BRANCH CHANNEL ALAFIA RIVER Frequency 3 Yrs	X		X			X			X	
HILLSBOROUGH BAY BRANCH CHANNEL PORT SUTTON & EAST BAY Frequency 4 Yrs			X				X			
HILLSBOROUGH BAY BRANCH CHANNEL SPARKMAN & YBOR SEDDON (if needed) Frequency 5 Yrs				X					X	

Beach Disposal Area: The beach at Egmont Key has been designated as a beneficial use site. Primary goal of material placement is to ameliorate erosion of the historic bunkers.

Open Water Disposal: Tampa Bay Watch and the Habitat Restoration Coordinating Committee have requested the Corps' assistance in habitat restoration of several former shallow water sites within the Tampa Bay area. These sites were excavated to obtain fill material for highway causeways, airport runways, and upland developments. The Tampa Estuary Program has conducted a study of these holes. Most are located in areas where sea grasses are currently or formerly located. The holes are also sinks for sediments but show no signs of contamination. In general, filling these holes would restore the natural bay bottom shallows to their original contours and depths. These sites are therefore being considered for placement of maintenance-dredged material as a beneficial use. The sites are listed in Table V. Table VI lists the available placement sites by reach.



TABLE IV ~ Potential Open Water Beneficial Use Sites			
Site/Background	Location	Reason for Restoration	Status
MACDILL AFB RUNWAY EXTENSION BORROW SITE Seagrass flat excavated to Provide fill to lengthen runway.	Hillsborough Co. SE end Of MacDill AFB, Gadsden Point	Fill to natural depths conductive to Seagrass propagation	Initial dredged material material placement fall of 2001
MCKAY BAY DREDGE CUTS Channels excavated to allow construction equipment access to Palm River - Tampa Bypass Canal	Hillsborough Co. S of penninsula @ N end Of McKay Bay	Fill 20 to 30 acres to impede floodwaters From Palm River while restoring natural water depths	
WHISKEY STUMP KEY HOLES Excavated to control siltation from the construction of Port Redwing	Hillsborough Co. Adjacent To Port Redwing	Fill to natural depths conductive to seagrass propagation And to protect adjacent island from erosion	
NORTHSHORE BEACH: Offshore sands excavated to create beach & portion of park	Pinnellas Co. E of N Shore Beach in downtown St. Petersburg	Fill to natural depths conductive to Seagrass Propagation	
SHORE ACRES DREDGE HOLE Area excavated to provide fill for housing construction. Hole used as boat channel.	Pinnellas Co. E side of Shore Acres, St. Petersburg, S of Venetian Isles	Partially fill hole Leaving boat channel in place.	
GANDY CHANNEL NORTH Source of material For Gandy Bridge Causeway	Pinnellas Co. Adjacent To Gandy Bridge Causeway	Fill to natural depths conductive to Seagrass propagation	

However, for any given dredging event, material may be placed in any site or combination of sites, provided use of the site satisfies the requirements of the federal standard (i.e., the dredged material disposal alternative or alternatives identified by the Corps which represent the least costly alternatives consistent with sound engineering practices and meeting the environmental standards established by the 404(b)(1) evaluation process or ocean dumping criteria). Any environmentally

acceptable placement alternative that is not the least cost alternative and may be accomplished by practicable means (available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes) may be considered where non-federal funding provides the additional cost.

TABLE V ~ Primary D/A						
Reach		Upland	Open Water	Beach	ODMDS	
Main Ship Channel	Egmont Bar & Mullet Key Channel	N/A	N/A	Egmont Key	Requires Current 103 Coordination	
	Tampa Bay Cuts A ~ F					
Port Tampa	Cuts G, J, J2 & K Including Turning Basin	N/A	Beneficial Use Sites	N/A		
Hillsborough Bay	Gadsden Point Cut Cuts A, C & D	2D or 3D				
Hillsborough Bay Branch Channels	Sparkman & Ybor					
	Alafia	A, B, & C	N/A			
	Pt Sutton & East Bay	2D or 3D				
	Sedden Channel					

PROJECT AUTHORIZATION: Rivers and Harbors Act of December 31, 1970, House Document No. 401, 91<sup>st</sup> Congress, Second Session.

APPLICABLE LAWS: The following laws are, or may be, applicable to the review of the proposed disposal sites and to the activities affiliated with this Federal project:

1. The Clean Water Act (33 U.S.C. 1251 et seq.) (also known as the Federal Water Pollution Control Act Amendments of 1972, 1977, and 1987).

2. The Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1401 et seq.) (commonly referred to as the Ocean Dumping Act (ODA)).

RELATED LAWS AND EXECUTIVE ORDERS: The following laws or executive orders may be applicable to the review of the proposed disposal sites and to the activities affiliated with this Federal project:

1. The National Historic Preservation Act of 1966 (16 U.S.C. 470a et seq.), as amended.
2. The Reservoir Salvage Act of 1960 (16 U.S.C. 469), as amended.
3. The Endangered Species Act (16 U.S.C. 1531 et seq.), as amended.
4. The Estuary Protection Act (16 U.S.C. 1221).
5. The Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), as amended.
6. The National Environmental Policy Act (42 U.S.C. 4341 et seq.), as amended.
7. The Wild and Scenic Rivers Act (16 U.S.C. 1271 et seq.) as amended.
8. Section 307(c) of the Coastal Zone Management Act of 1976 (16 U.S.C. 1456 (c)), as amended.
9. The Water Resources Development Act of 1976 (Pub. L. 94-587).
10. Executive Order 11593, Protection and Enhancement of the Cultural Environment, May 13, 1971, (36 FR 8921, May 15, 1971).
11. Executive Order 11988, Floodplain Management, May 24, 1977, (42 FR 26951, May 25, 1977).
12. Executive Order 11990, Protection of Wetlands, May 24, 1977, (42 FR 26961, May 25, 1977).
13. Executive Order 12372, Intergovernmental Review of Federal Programs, July 14, 1982, (47 FR 3959, July 16, 1982).
14. Executive Order 12114, Environmental Effects Abroad of Major Federal Actions, January 4, 1979.

EVALUATION: Evaluation of the majority of the Tampa harbor maintenance-dredging project has been completed in conjunction with past maintenance and other dredging activities. Table VI

summarizes the documentation status for all coordination except 103 Coordination.

As documentation is completed, it will be posted on the Jacksonville District Environmental page. Our WEB address is:

<http://www.saj.usace.army.mil/>

Once connected: Click on **Environmental & Archeology** from the menu

Click on **Environmental Documents**

Click on **Click here for current environmental documents & notices**

Click on **Hillsborough County**

Scroll down to Tampa Harbor, then click on desired document.

**ENVIRONMENTAL ASSESSMENT (EA):** The existing EA for Tampa Harbor addresses the maintenance dredging and most of the placement sites. This was done in conjunction with previous maintenance dredging events at Tampa Harbor. The EA will be amended to include the new placement areas. Preliminary evaluation of the available information indicates that the proposed project will have no significant impact on the quality of the human environment and an Environmental Impact Statement pursuant to the National Environmental Policy Act (NEPA) will not be required. Additional coordination will be performed to ensure that the new placement areas are in environmental compliance.

**COASTAL ZONE MANAGEMENT (CZM):** As indicated in the above table, a Coastal Zone Management Determination for a majority of the proposed project for Tampa Harbor has previously been coordinated for maintenance dredging of Tampa Harbor in accordance with Florida's Coastal Zone Management Program. As required by Section 307 of the Coastal Zone Management Act, it was determined to be consistent with the goals and intent of the appropriate State statutes. It is anticipated that use of the additional placement areas will also be determined to be consistent. The continued validity of the determination will be confirmed by DEP's issuance of the new WQC.

**ESSENTIAL FISH HABITAT (EFH):** As indicated in the above table, an Essential Fish Habitat Determination has been previously prepared and coordinated for maintenance dredging of the majority of this Tampa Harbor maintenance dredging project. Impacts were determined to be minimal and no mitigation was required.

TABLE VI ~ STATUS OF ENVIRONMENTAL COORDINATION						
ACTIVITY CATEGORY  Site	COORDINATION					
	EA	CZM	EFH	Sec 7	Seagrass	SHPO
<b>DREDGING FEDERAL CHANNELS</b>	X	X	X	X	X	X
<b>PLACEMENT</b>						
<b>OCEAN</b>						
1) ODMDS	X	X	N/A	X	X	X
<b>UPLAND</b>						
1) A,B,C,2D & 3D	X	X	N/A	X	X	X
<b>BEACH</b>						
1) Egmont Key	Underway	Underway	Underway	Underway	Underway	Underway
<b>OPEN WATER</b>						
1) North Shore Beach	Needed	Needed	Needed	Needed	Needed	Needed
2) Shore Acres						
3) MacDill						
4) Whiskey Stump Key	X	X	X	X	X	X
5) McKay Bay						
6) Gandy Channel	Needed	Needed	Needed	Needed	Needed	Needed

Coordination of the additional areas will be undertaken. The holes provide an "edge affect" for fish in shallow water areas similar to the effect that artificial reefs have in deep water. Larger species of fish use the edge to feed on smaller fish as the smaller fish enter the holes. Fishermen use these artificial fish attractors. In general, filling these holes would restore the natural bay bottom shallows to their original contours and depths. The loss of shallow water habitat has been well documented in Tampa Bay and is a prime cause of seagrass losses as well. The restoration of these bottom habitats would increase the amount of nursery areas for fishery in Tampa Bay. Filling

these holes to create shallow bay bottoms would comply with the Essential Fish Habitat goals.

ENDANGERED SPECIES: A Regional Biological Opinion (RBO) dated 19 Nov 2003 was prepared for impacts on sea turtles from hopper dredging in the Gulf of Mexico. All maintenance dredging of the federal navigation project for Tampa Harbor will be performed in accordance with this RBO.

All standard conditions and protection practices for manatees, migratory birds, and all other local threatened or endangered species will be adhered to during the dredging and placement operations.

SEAGRASS: As indicated in the above table, consultation with the U.S. Fish and Wildlife Service and Florida State Fresh Water Fish and Wildlife Commission has been conducted for a majority of the project. Seagrasses have been found adjacent to the majority of the placement sites. Protective measures have been successfully used during previous placement efforts. It is anticipated that similar protective measures can be used if seagrasses are found adjacent to any of the new placement areas.

EVALUATION FACTORS: All factors that may be relevant to the proposal will be considered including the cumulative effects thereof. Among these are conservation, economics, aesthetics, general environmental concerns, wetlands, historic resources, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, seagrasses, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership and, in general, the needs and welfare of the people.

103 Determination: Placement of maintenance-dredged material from Tampa Harbor may be placed in the EPA ODMDS site with EPA concurrence. This requires testing of the material and a current 103 Determination. A 103 Determination is considered current for 3 years and may be extended an additional 2 to 3 years with EPA concurrence. At the present time, there is no current 103 Determination for Tampa Harbor. When dredging is scheduled for placement in the ODMDS, testing and concurrence for a 103 Determination will be obtained.

HISTORICAL RESOURCES: As indicated in the above table, coordination has been conducted for a majority of the project with the Florida Department of State, Division of Historical

Resources. The State Historic Preservation Officer (SHPO) has stated that the project will have "No Adverse Impact" on historic properties listed, or eligible for listing in the National Register of Historic Places. Coordination for the additional sites will also be undertaken and it is anticipated a "No Adverse Impact" determination will also be issued.

However, if such resources are found within the project area prior to, or during construction, all precautions will be taken to preserve those resources in their pre-discovery condition. Any unusual items as observed by Corps personnel or by the Contractor to have historical or archeological value shall be reported as soon as practicable.

DISSEMINATION OF NOTICE: You are requested to communicate the information contained in this notice to any other parties whom you deem likely to have an interest in this matter.

COORDINATION: This notice is being sent to the following agencies:

FEDERAL AGENCIES:

FEDERAL HIGHWAY ADMINISTRATION  
U.S. COAST GUARD  
U.S. FISH & WILDLIFE SERVICE  
ATLANTIC MARINE CENTER  
NATIONAL MARINE FISHERIES SERVICE  
NATIONAL PARK SERVICE  
U.S. GEOLOGICAL SURVEY  
FEDERAL ENERGY REGULATORY COMMISSION, ATLANTA, GA.  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION  
FEDERAL MARITIME COMMISSION  
U.S. DEPARTMENT OF AGRICULTURE  
U.S. DEPARTMENT OF INTERIOR  
DEPARTMENT OF COMMERCE  
U.S. DEPARTMENT OF ENERGY  
U.S. PUBLIC HEALTH SERVICE  
U.S. DEPARTMENT OF HOUSING & URBAN DEVELOPEMENT  
FEDERAL EMERGENCY MANAGEMENT ADMINISTRATION  
SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL  
ADVISORY COUNCIL ON HISTORIC PRESERVATION  
FLORIDA STATE CLEARING HOUSE

STATE AGENCIES:

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DIVISION OF SOLID WASTE MANAGEMENT



FLORIDA INLAND NAVIGATION DISTRICT  
FLORIDA FISH & WILDLIFE CONSERVATION COMMISSION  
DIVISION OF ARCHIVES, HISTORY & RECORDS  
STATE HISTORIC PRESERVATION OFFICE  
FLORIDA DEPARTMENT OF TRANSPORTATION  
SOIL CONSERVATION SERVICE  
PLANNING MANAGER BUREAU OF SUBMERGED LANDS DEPARTMENT  
BUREAU OF SOIL AND WATER CONSERVATION  
FLORIDA OFFICE OF ENTOMOLOGY  
SOUTH WEST FLORIDA WATER MANAGEMENT DISTRICT  
FLORIDA STATE CLEARINGHOUSE  
FLORIDA MARINE PATROL  
BUREAU OF STATE PLANNING  
FLORIDA DIVISION OF RECREATION  
HABITAT CONSERVATION SERVICE  
FLORIDA STATE CONSERVATION SERVICE  
FLORIDA STATE REPRESENTATIVES

ENVIRONMENTAL ORGANIZATIONS:

FLORIDA AUDUBON SOCIETY, MAITLAND, FL  
FRIENDS OF THE EVERGLADES  
FLORIDA WILDLIFE FEDERATION, WEST PALM BEACH, FL  
SIERRA CLUB  
FLORIDA DEFENDERS OF THE ENVIRONMENT  
NATIONAL ESTUARY PROGRAM, ST. PETERSBURG, FL  
G.E.C., INC.,

LOCAL GOVERNMENTS AND ORGANIZATIONS:

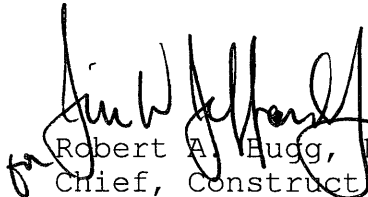
HILLSBOROUGH COUNTY ADMINISTRATOR  
BOARD OF COUNTY COMMISSIONERS, HILLSBOROUGH COUNTY  
CITY OF TAMPA  
GULF COAST INLAND NAVIGATION DISTRICT  
SOUTH FLORIDA REGIONAL PLANNING COUNCIL  
AREA ON BAY MANAGEMENT

MEDIA:

THE TAMPA TRIBUNE

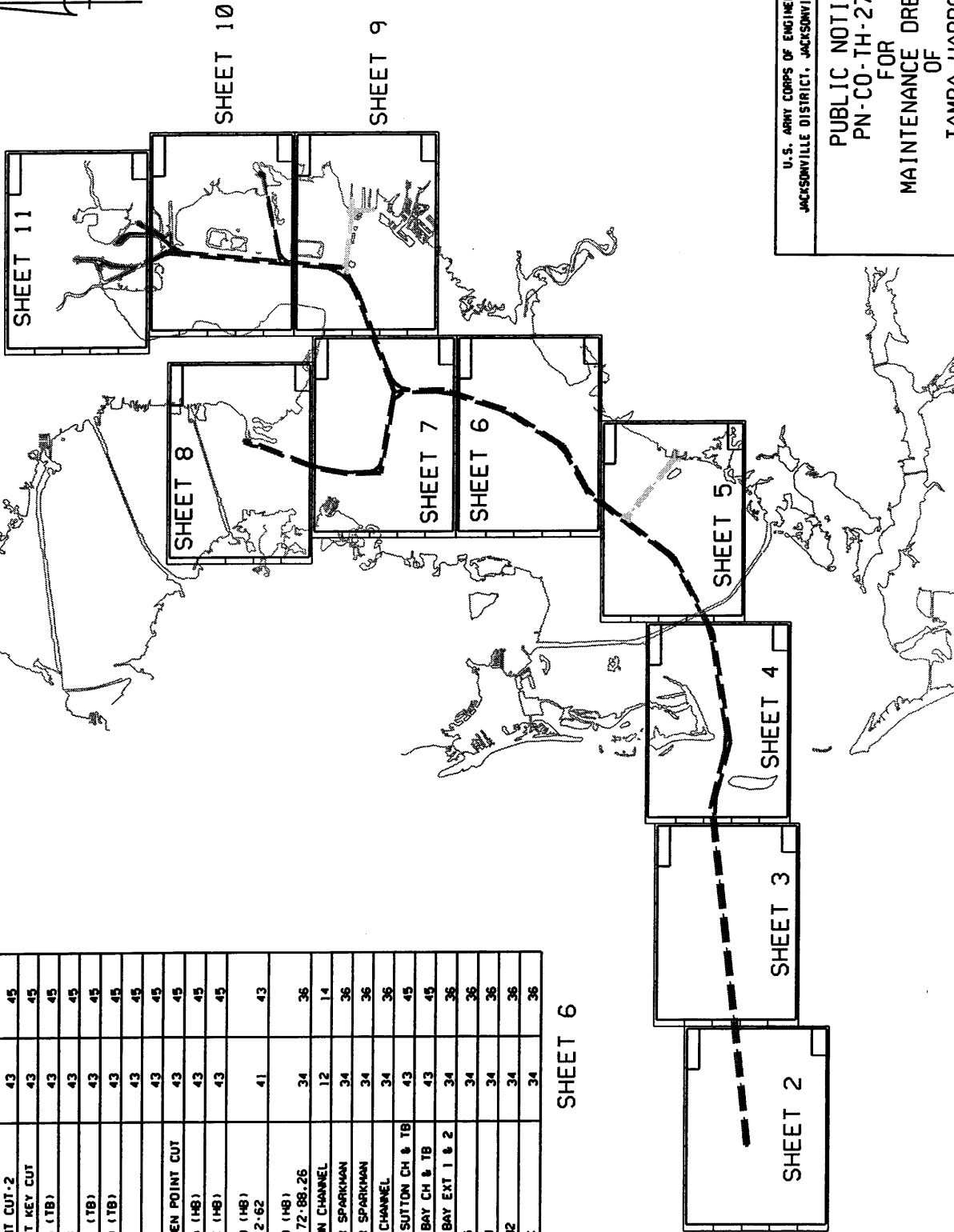
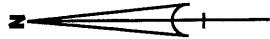
FOR THE COMMANDER:

Enclosure

  
Robert A. Eugg, P.E.  
Chief, Construction-Operations  
Division

CUT	PROJECT DEPTH (FT.)	ALLOWABLE OVER DEPTH
ECOMT CUT-1	45	47
ECOMT CUT-2	43	45
MULLET KEY CUT	43	45
CUT-A (TB)	43	45
CUT-B	43	45
CUT-C (TB)	43	45
CUT-D (TB)	43	45
CUT-E	43	45
CUT-F	43	45
GAZDEN POINT CUT	43	45
CUT-A (HB)	43	45
CUT-C (HB)	43	45
CUT-D (HB)	41	43
STA. 2+62		
CUT-D (HB)	34	36
STA. 72+88.26		
SEDDON CHANNEL	12	14
LOWER SPARKMAN	34	36
UPPER SPARKMAN	34	36
YBOR CHANNEL	34	36
PORT SUTTON CH & TB	43	45
EAST BAY CH & TB	43	45
EAST BAY EXT 1 & 2	34	36
CUT-G	34	36
CUT-J	34	36
CUT-K	34	36

SHEET 6

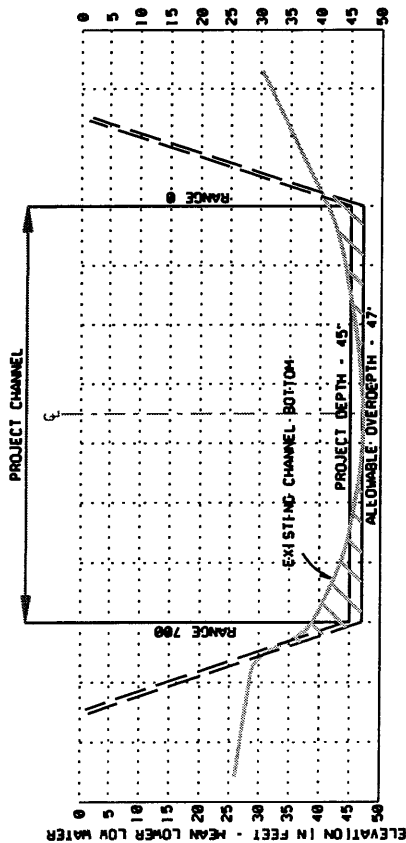


U.S. ARMY CORPS OF ENGINEERS  
JACKSONVILLE DISTRICT, JACKSONVILLE, FLORIDA

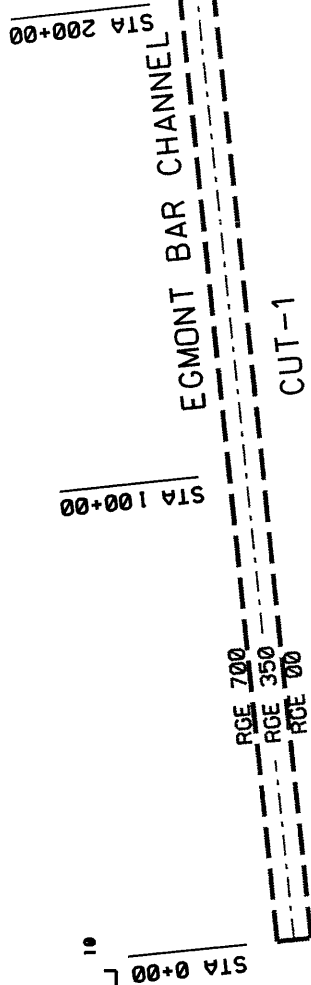
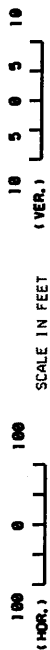
PUBLIC NOTICE  
PN-CO-TH-271  
FOR  
MAINTENANCE DREDGING  
OF  
TAMPA HARBOR

CHANNEL LOCATION MAP

REV. AUG 84 PN CHANNEL DRAWING NO. 1

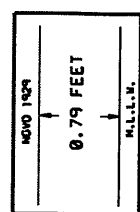


TYPICAL CROSS SECTION  
FOR EGMONT CUT-1



MATCH SHEET NO. 3

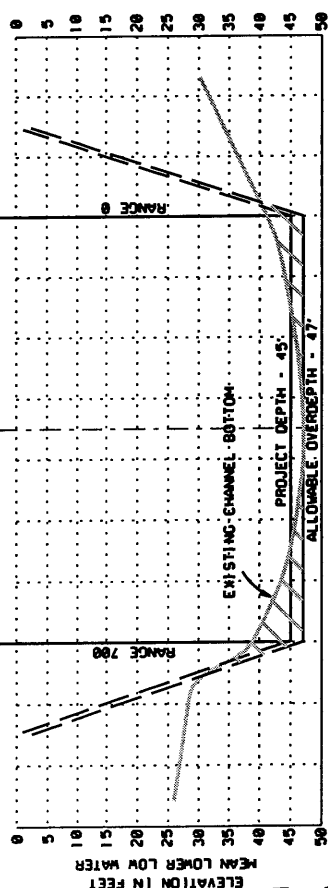
U.S. ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT, JACKSONVILLE, FLORIDA	
PUBLIC NOTICE PN-CO-TH-271	
FOR TAMPA HARBOR MAINTENANCE DREDGING	
FROM EGMONT CUT-1 STA. 0+00 TO EGMONT CUT-1 STA. 234+08	
LOCATION MAP	
REV. AUG 2005	PN CHANNEL DRAWING NO. 2



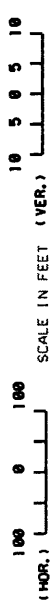
GRAPHIC SCALE

RELATIONSHIP BETWEEN NGVD 1929  
AND MEAN LOWER LOW WATER





TYPICAL CROSS SECTION  
FOR EGMONT CUT-1



STA 300+00

STA 400+00

STA 500+00

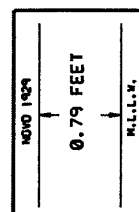
STA 600+00

EGMONT BAR CHANNEL

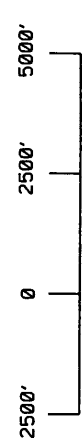
CUT-1

MATCH SHEET NO. 4

MATCH SHEET NO. 2

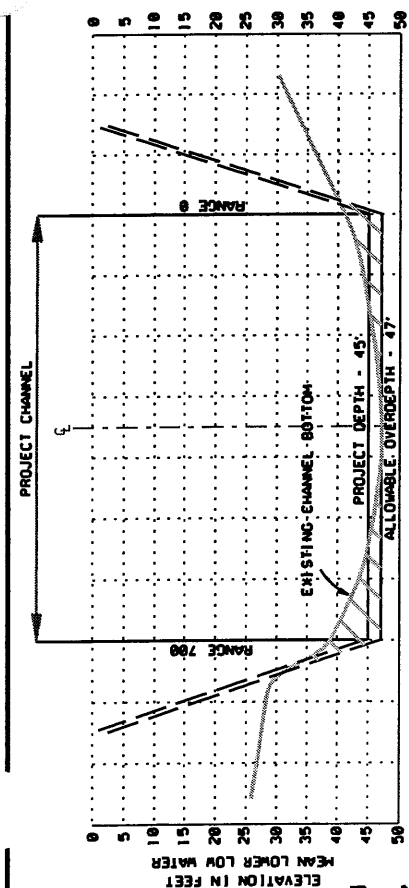


GRAPHIC SCALE

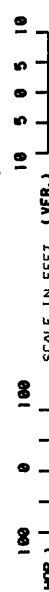


RELATIONSHIP BETWEEN NGVD 1929  
AND MEAN LOWER LOW WATER

U.S. ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT, JACKSONVILLE, FLORIDA	PUBLIC NOTICE
PN-CO-TH-271 FOR	
TAMPA HARBOR MAINTENANCE DREDGING	
FROM EGMONT CUT-1 STA. 234+08 TO EGMONT CUT-1 STA. 636+30	
LOCATION MAP	
REV: AUG 2005	PN CHANNEL DRAWING NO. 3



TYPICAL CROSS SECTION  
FOR EGMONT CUT-1



STA 300+00

STA 400+00

STA 500+00

STA 600+00

EGMONT BAR CHANNEL

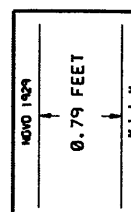
CUT-1

RCE 700  
RCE 350  
RCE 00



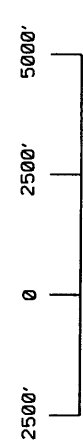
MATCH SHEET NO. 2

MATCH SHEET NO. 4



RELATIONSHIP BETWEEN NGVD 1929  
AND MEAN LOWER LOW WATER

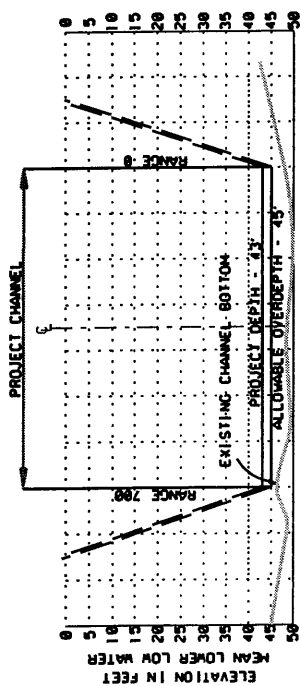
GRAPHIC SCALE



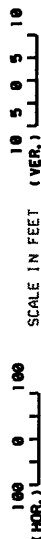
U.S. ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT, JACKSONVILLE, FLORIDA	PUBLIC NOTICE PN-CO-TH-271 FOR TAMPA HARBOR MAINTENANCE DREDGING	FROM EGMONT CUT-1 STA. 234+08 TO EGMONT CUT-1 STA. 636+30	LOCATION MAP
REV: AUG 2005	PN CHANNEL DRAWING NO. 3		



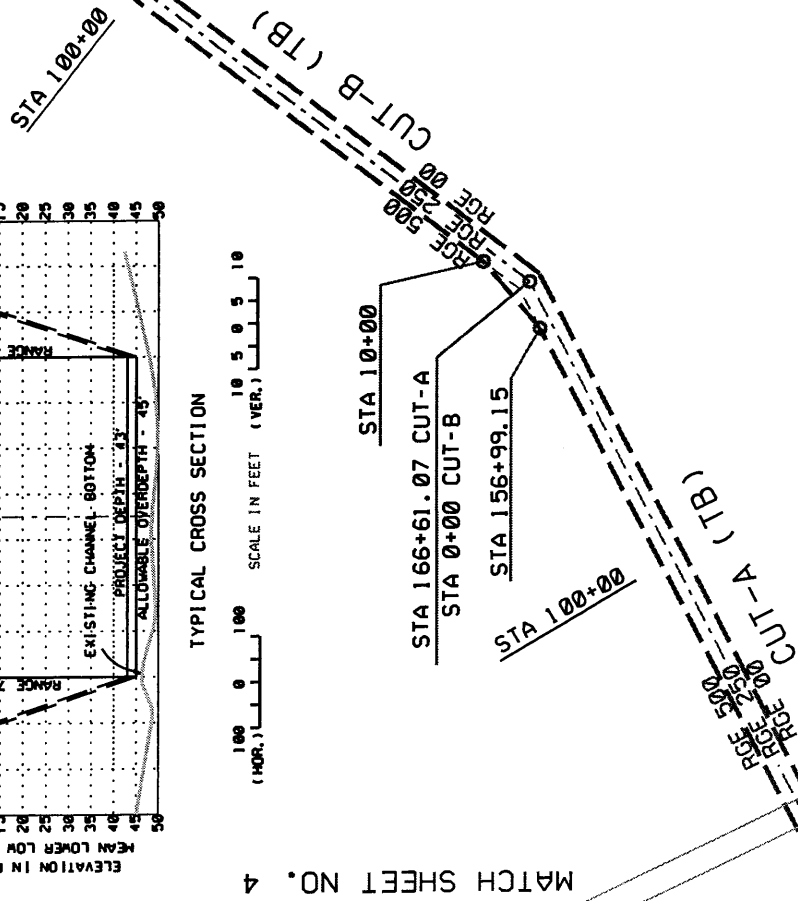
MATCH SHEET NO. 6



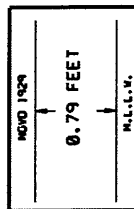
TYPICAL CROSS SECTION



MATCH SHEET NO. 4



# FOR THE

RELATIONSHIP BETWEEN NGVD 1929  
AND MEAN LOWER LOW WATER

U.S. ARMY CORPS OF ENGINEERS  
JACKSONVILLE DISTRICT, JACKSONVILLE, FLORIDA

**PUBLIC NOTICE**

PN-CO-TH-271

OF

**TAMPA HARBOR MAINTENANCE DREDGING**

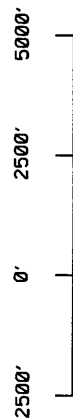
FROM CUT-A (TB) STA. 22+23

TO CUT-B (TB) STA. 178+42

## LOCATION MAP

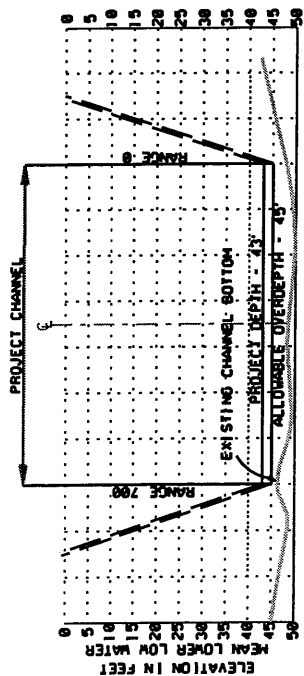
REV: AUG 2005	PN CHANNEL DRAWING NO. 5
---------------	--------------------------

GRAPHIC SCALE





MATCH SHEET NO. 7



TYPICAL CROSS SECTION

100 0 100 SCALE IN FEET (HOR.) 10 5 0 5 10 (VER.)

CUT-E (TB)

STA 111+37

STA 131+53.96 CUT-D

STA 0+00 CUT-E

STA 120+16.96

CUT-D (TB)

STA 10+49.09

STA 94+63.31

STA 10+06.44

STA 0+00 CUT-C

STA 209+55.47 CUT-B

STA 199+49.08

STA 0+00 CUT-D

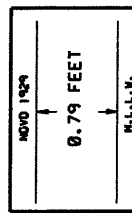
STA 105+12.12 CUT-C

COCKROACH BAY

GRAPHIC SCALE

2500' 0' 2500' 5000'

MATCH SHEET NO. 5



RELATIONSHIP BETWEEN NGVD 1929 AND MEAN LOWER LOW WATER

U.S. ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT, JACKSONVILLE, FLORIDA	LOCATION MAP
PUBLIC NOTICE PN-CO-TH-271 FOR TAMPA HARBOR MAINTENANCE DREDGING	
FROM CUT-B STA. 178+42 TO CUT-E STA. 100+35	
REV: AUG 2005	PN CHANNEL DRAWING NO. 6

# MATCH SHEET NO. 8

PROJECT CHANNEL

STA 5+16.78

STA 54+06.26

STA 0+00 CUT J-2

STA 67+00 CUT J-2

STA 0+00 CUT K

STA 58+87.84 CUT J-2

STA 4+79.98

STA 62+20.02

STA 19+13.88

STA 144+78.92

STA 100+00

STA 163+92.81 CUT-G

STA 79+99.94

STA 16+95.13

STA 66+76.96

STA 30+42.48

2500' 0' 2500' 5000'

GRAPHIC SCALE

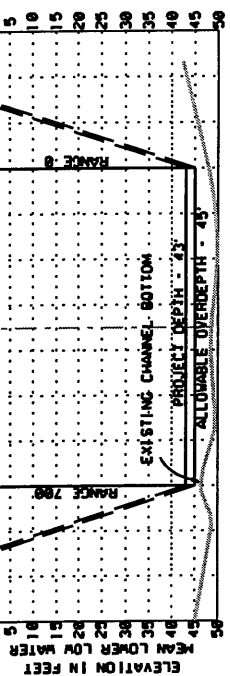
RELATIONSHIP BETWEEN NGVD 1929 AND NOAA MEAN LOWER LOW WATER TIDAL DATUM (1960-1978 EPOCH)			
M.L.L.W.	M.L.L.W.	M.L.L.W.	M.L.L.W.
0.79 FEET ↑ EGMONT CUT-F THRU CUT-F	0.81 FEET ↑ CUT-G THRU CUT-K	0.95 FEET ↑ GASDEN POINT CUT THRU CUT-C (HB)	

MATCH SHEET NO. 6

REV. AUG 2005 PN CHANNEL DRAWING NO. 7

U.S. ARMY CORPS OF ENGINEERS  
JACKSONVILLE DISTRICT, JACKSONVILLE, FLORIDA

PUBLIC NOTICE  
PN-CO-TH-271  
FOR  
TAMPA HARBOR MAINTENANCE DREDGING  
FROM CUT-E STA. 100+35  
TO GASDEN POINT CUT STA. 116+80  
AND CUT-K STA. 8+23  
LOCATION MAP



TYPICAL CROSS SECTION  
FOR CUT-F AND GASDEN POINT CUT

100 0 100 SCALE IN FEET (1"=10')

SEE DRAWING NO. 8 FOR TYPICAL CROSS SECTION OF CUT-G, CUT-J, AND CUT J-2

STA 0+00 GASDEN POINT

STA 96+96.46 CUT-F

STA 0+00 CUT-G

CUT-G

CUT-J

CUT-K

CUT-L

CUT-M

CUT-N

CUT-O

CUT-P

CUT-Q

CUT-R

CUT-S

CUT-T

CUT-U

CUT-V

CUT-W

CUT-X

CUT-Y

CUT-Z

CUT-AA

CUT-AB

CUT-AC

CUT-AD

CUT-AE

CUT-AF

CUT-AG

CUT-AH

CUT-AI

CUT-AJ

CUT-AK

CUT-AL

CUT-AM

CUT-AN

CUT-AO

CUT-AP

CUT-AQ

CUT-AR

CUT-AS

CUT-AT

CUT-AU

CUT-AV

CUT-AW

CUT-AX

CUT-AY

CUT-AZ

CUT-BA

CUT-BB

CUT-BC

CUT-BD

CUT-BE

CUT-BF

CUT-BG

CUT-BH

CUT-BI

CUT-BJ

CUT-BK

CUT-BL

CUT-BM

CUT-BN

CUT-BO

CUT-BP

CUT-BQ

CUT-BR

CUT-BS

CUT-BT

CUT-BU

CUT-BV

CUT-BW

CUT-BX

CUT-BY

CUT-BZ

CUT-CA

CUT-CB

CUT-CC

CUT-CD

CUT-CE

CUT-CF

CUT-CG

CUT-CH

CUT-CI

CUT-CJ

CUT-CK

CUT-CL

CUT-CM

CUT-CN

CUT-CO

CUT-CP

CUT-CQ

CUT-CR

CUT-CS

CUT-CT

CUT-CU

CUT-CV

CUT-CW

CUT-CX

CUT-CY

CUT-CZ

CUT-DA

CUT-DB

CUT-DC

CUT-DD

CUT-DE

CUT-DF

CUT-DG

CUT-DH

CUT-DI

CUT-DJ

CUT-DK

CUT-DL

CUT-DM

CUT-DN

CUT-DO

CUT-DP

CUT-DQ

CUT-DR

CUT-DS

CUT-DT

CUT-DU

CUT-DV

CUT-DW

CUT-DX

CUT-DY

CUT-DZ

CUT-EA

CUT-EB

CUT-EC

CUT-ED

CUT-EE

CUT-EF

CUT-EG

CUT-EH

CUT-EI

CUT-EJ

CUT-EK

CUT-EL

CUT-EM

CUT-EN

CUT-EO

CUT-EP

CUT-EQ

CUT-ER

CUT-ES

CUT-ET

CUT-EU

CUT-EV

CUT-EW

CUT-EX

CUT-EY

CUT-EZ

CUT-FA

CUT-FB

CUT-FC

CUT-FD

CUT-FE

CUT-FG

CUT-FH

CUT-FI

CUT-FJ

CUT-FK

CUT-FL

CUT-FM

CUT-FN

CUT-FO

CUT-FP

CUT-FQ

CUT-FR

CUT-FS

CUT-FT

CUT-FU

CUT-FV

CUT-FW

CUT-FX

CUT-FY

CUT-FZ

CUT-GA

CUT-GB

CUT-GC

CUT-GD

CUT-GE

CUT-GF

CUT-GG

CUT-GH

CUT-GI

CUT-GJ

CUT-GK

CUT-GL

CUT-GM

CUT-GN

CUT-GO

CUT-GP

CUT-GQ

CUT-GR

CUT-GS

CUT-GT

CUT-GU

CUT-GV

CUT-GW

CUT-GX

CUT-GY

CUT-GZ

CUT-HA

CUT-HB

CUT-HC

CUT-HD

CUT-HE

CUT-HF

CUT-HG

CUT-HH

CUT-HI

CUT-HJ

CUT-HK

CUT-HL

CUT-HM

CUT-HN

CUT-HO

CUT-HP

CUT-HQ

CUT-HR

CUT-HS

CUT-HT

CUT-HU

CUT-HV

CUT-HW

CUT-HX

CUT-HY

CUT-HZ

CUT-IA

CUT-IB

CUT-IC

CUT-ID

CUT-IE

CUT-IF

CUT-IG

CUT-IH

CUT-II

CUT-IJ

CUT-IK

CUT-IL

CUT-IM

CUT-IN

CUT-IO

CUT-IP

CUT-IQ

CUT-IR

CUT-IS

CUT-IT

CUT-IU

CUT-IV

CUT-IW

CUT-IX

CUT-IY

CUT-IZ

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CUT-JC

CUT-JD

CUT-JE

CUT-JF

CUT-JG

CUT-JH

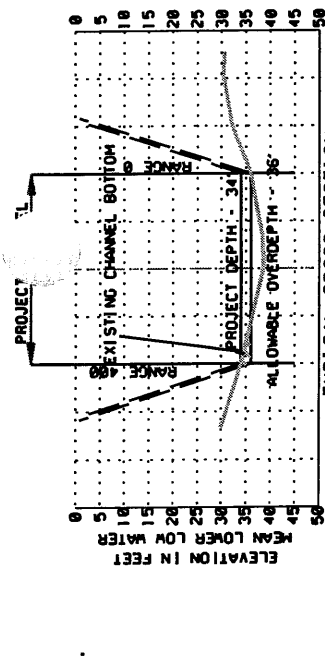
CUT-JI

CUT-JJ

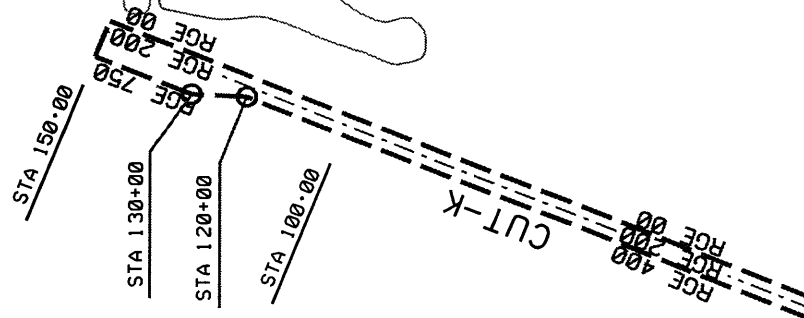
CUT-JK

CUT-JL

GRAPHIC SCALE



CANDY BRIDGE



U.S. ARMY CORPS OF ENGINEERS  
JACKSONVILLE DISTRICT, JACKSONVILLE, FLORIDA

PUBLIC NOTICE  
PN-CO-TH-271

FOR  
TAMPA HARBOR MAINTENANCE DREDGING  
FROM CUT-K STA. 8+23  
TO CUT-K STA. 150+00

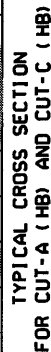
LOCATION MAP

REV: AUG 2005 PN CHANNEL DRAWING NO. 8

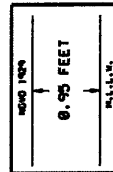
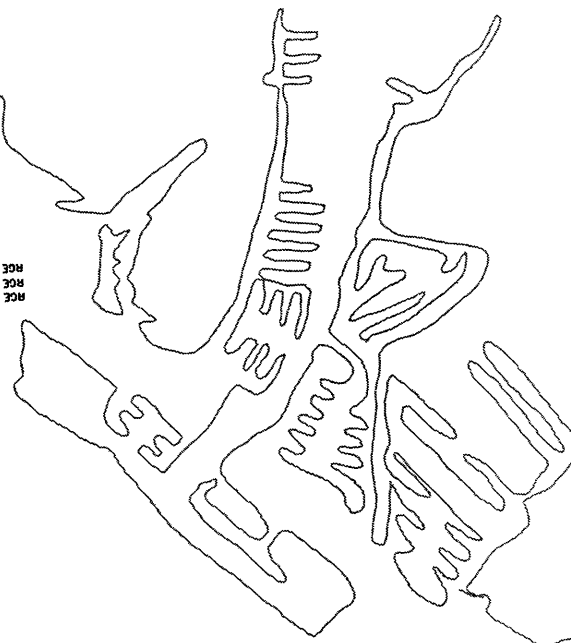
MATCH SHEET NO. 7

INTERBAY  
PENINSULA

STA 194+09.18



Distance from Reference Point	Distance from Reference Point	Distance from Reference Point
2500'	0'	5000'
2500'	0'	5000'

RELATIONSHIP BETWEEN NOVEMBER 1929  
AND MEAN LOWER LOW WATER

**U.S. ARMY CORPS OF ENGINEERS  
JACKSONVILLE DISTRICT, JACKSONVILLE, FLORIDA**

**PUBLIC NOTICE**

FOR  
D-TH-271

## TAMPA HARBOR MAINTENANCE DREDGING

FROM GASDEN POINT CUT STA. 116+80  
TO CUT-C (HB) STA. 95+36

## LOCATION MAP

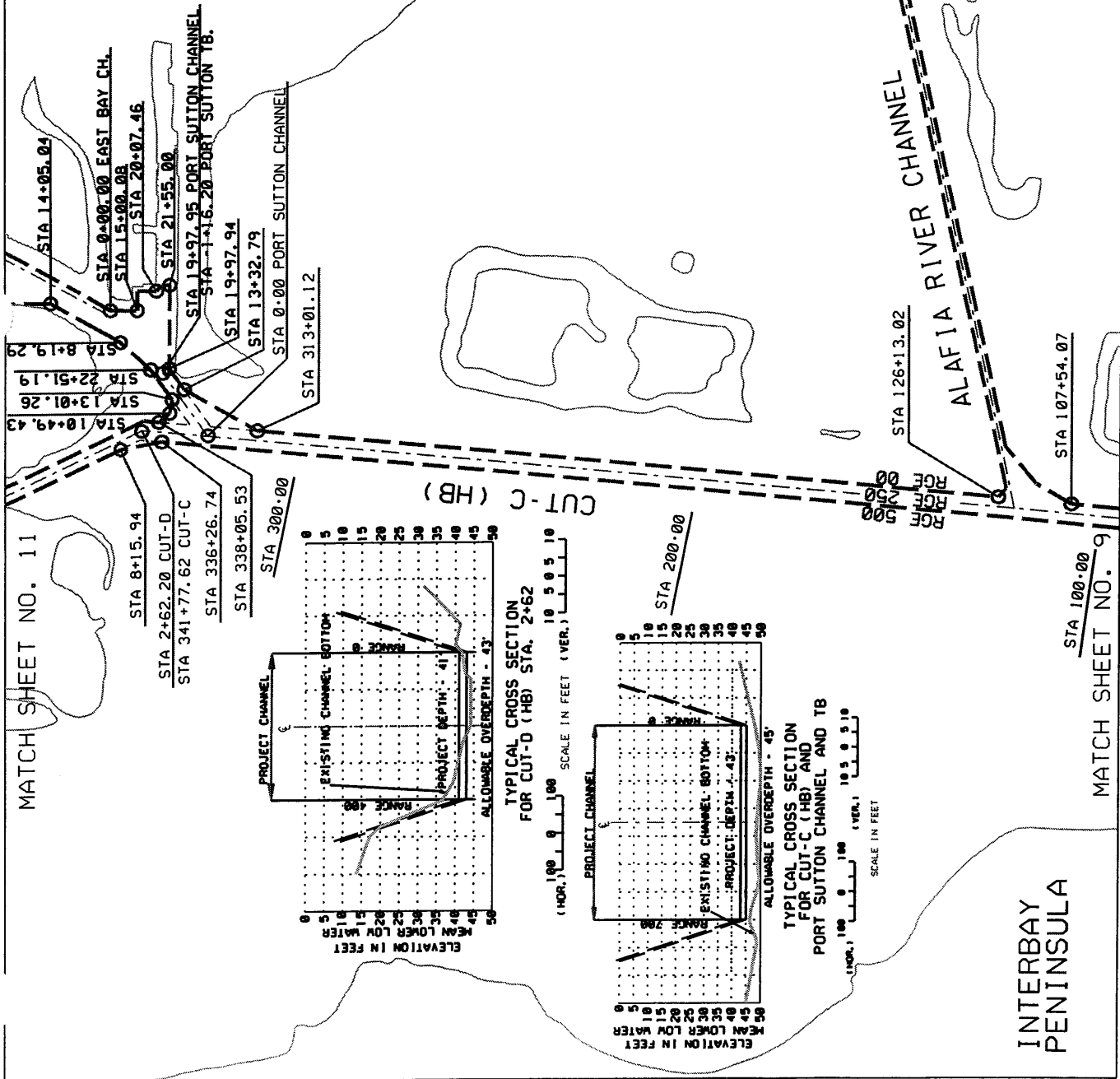
REV: AUG 2003	PN CHANNEL DRAWING NO. 9
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MATCH SHEET NO. 11

RELATIONSHIP BETWEEN NGVD 1929 AND NOAA MEAN LOWER LOW WATER TIDAL DATUM (1960-1978 EPOCH)			
M.L.L.W.		M.L.L.W.	
0.95 FEET		0.99 FEET	
GARDEN POINT CUT THRU CUT-C (HB)		CUT-D (HB) THRU YBOR, PORT SUTTON EAST BAY CHANNELS, AND SEDDON CHANNEL	



GRAPHIC SCALE



INTERBAY  
PENINSULA

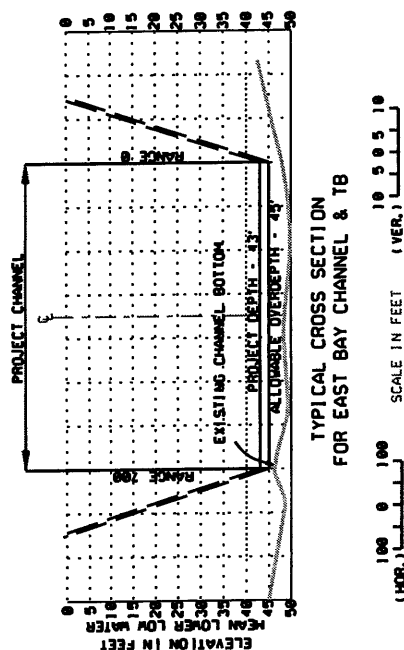
ALAFIA RIVER CHANNEL

STA 126+13.02

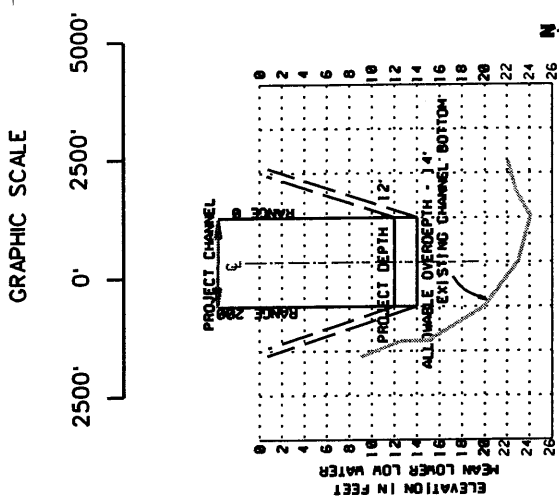
STA 107+54.07

MATCH SHEET NO. 9

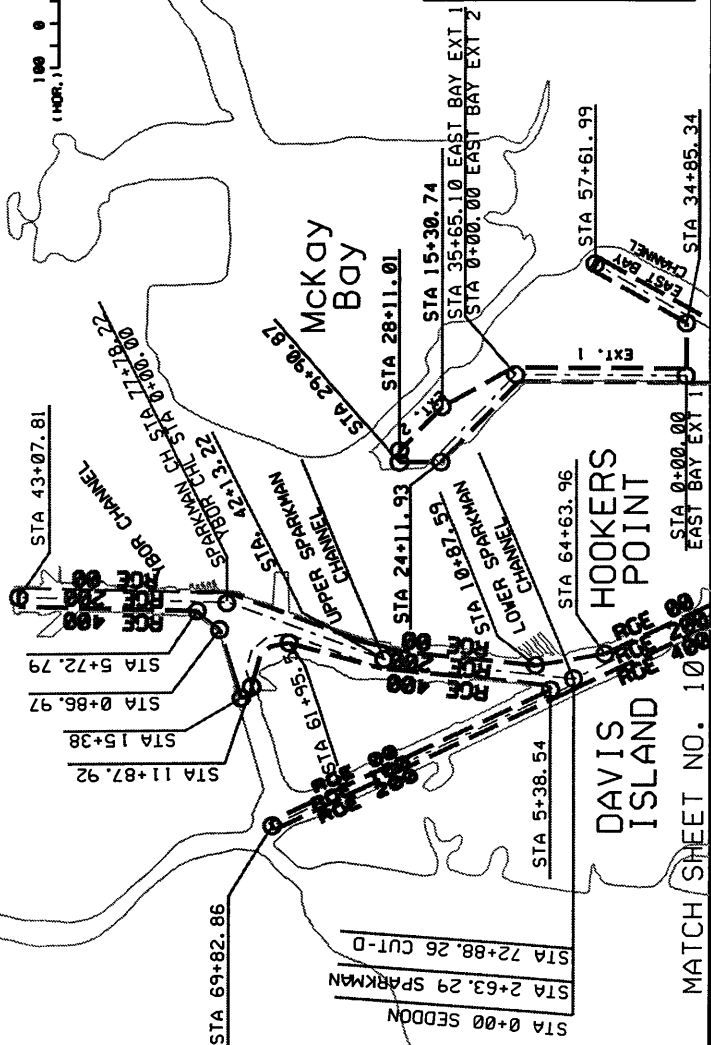
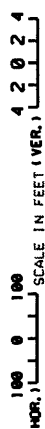
U.S. ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT, JACKSONVILLE, FLORIDA
PUBLIC NOTICE PN-CO-TH-271 FOR TAMPA HARBOR MAINTENANCE DREDGING FROM CUT-C (HB) STA. 95.36 TO CUT D STA. 35-72. ALAFIA RIVER CHANNEL AND PART OF EAST BAY CHANNEL LOCATION MAP
REV. AUG 2005 PN CHANNEL DRAWING NO. 10



TYPICAL CROSS SECTION  
FOR CUT-D (HB) STA. 72+88.26,  
LOWER SPARKMAN CHANNEL, UPPER SPARKMEN CHANNEL,  
YBOR CHANNEL AND EAST BAY EXT. 1 & 2



**TYPICAL CROSS SECTION  
FOR SEDDON CHANNEL**



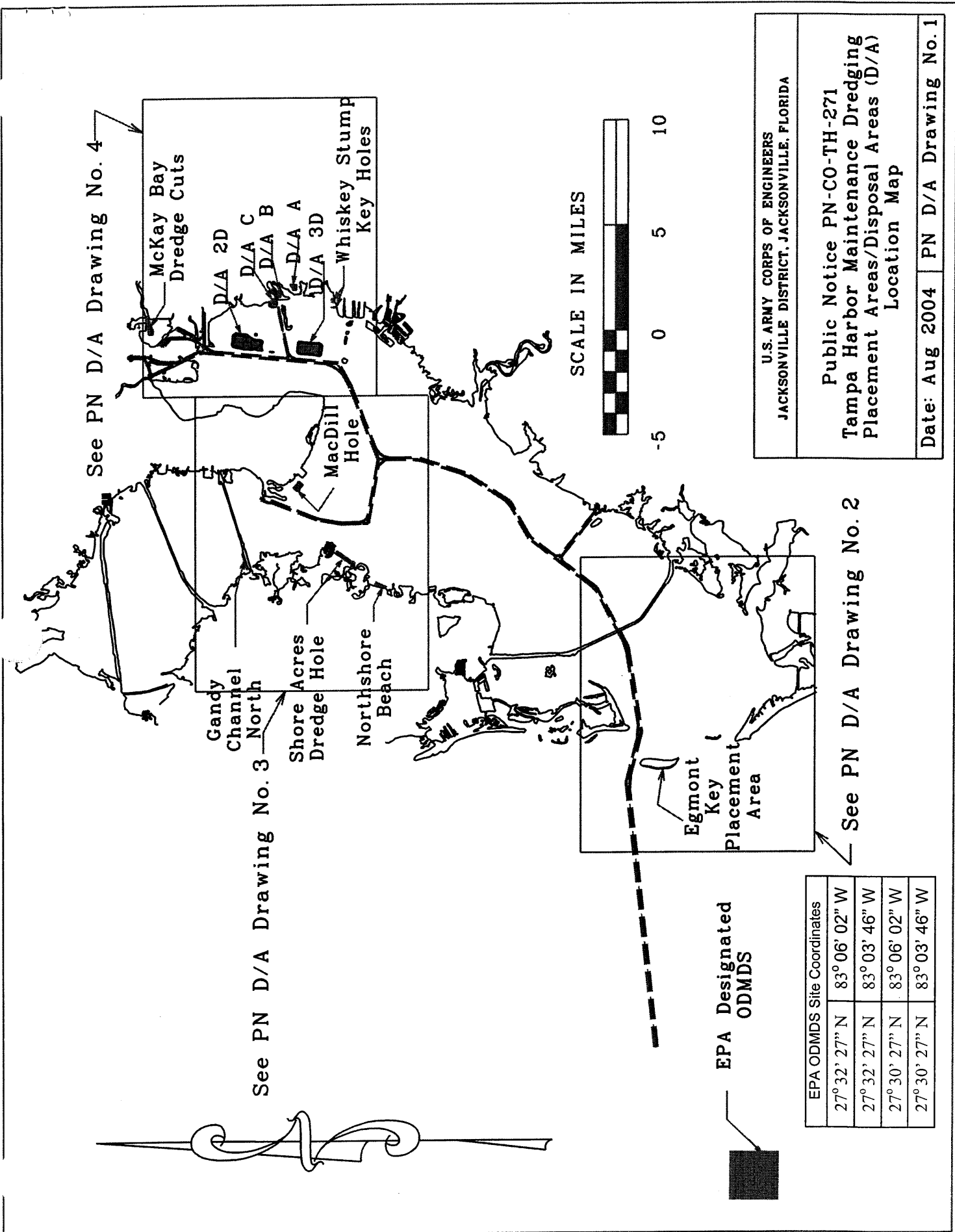
MATCH SHEET NO. 10

U.S. ARMY CORPS OF ENGINEERS  
JACKSONVILLE DISTRICT, JACKSONVILLE, FLORIDA

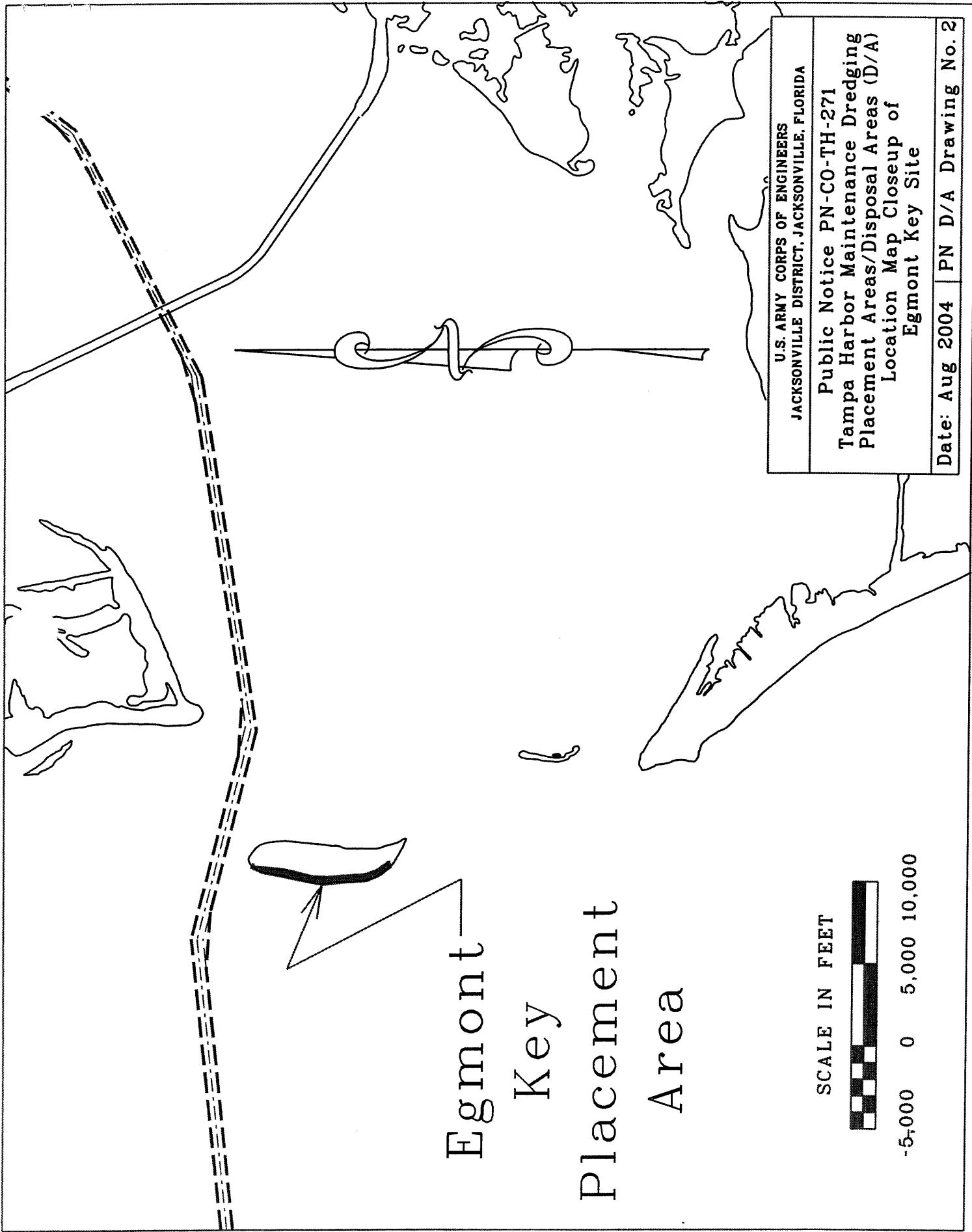
TAMPA HARBOR MAINTENANCE DREDGING  
FOR  
FROM CUT-D STA. 35+72  
TO END OF PROJECT

REV: AUG 2005	LOCATION MAP
PN CHANNEL DRAWING NO. 11	

RELATIONSHIP BETWEEN NGVO 1929  
AND MEAN LOW WATER



U.S. ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT, JACKSONVILLE, FLORIDA	
Public Notice PN-CO-TH-271 Tampa Harbor Maintenance Dredging Placement Areas/Disposal Areas (D/A) Location Map	
Date: Aug 2004	PN D/A Drawing No. 1



Egmont  
Key  
Placement  
Area

SCALE IN FEET



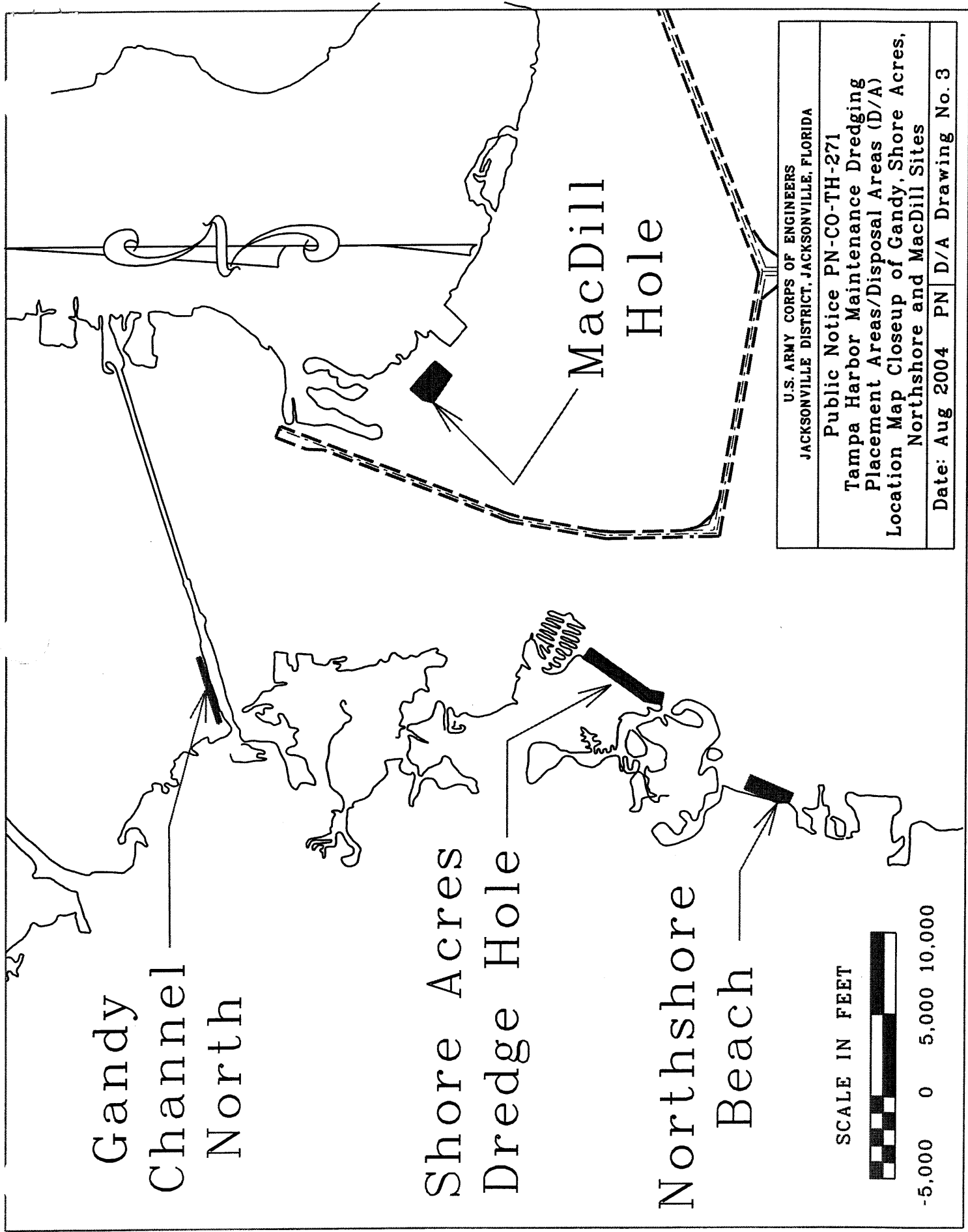
-5,000 0 5,000 10,000

U.S. ARMY CORPS OF ENGINEERS  
JACKSONVILLE DISTRICT, JACKSONVILLE, FLORIDA

Public Notice PN-CO-TH-271  
Tampa Harbor Maintenance Dredging  
Placement Areas/Disposal Areas (D/A)  
Location Map Closeup of  
Egmont Key Site

Date: Aug 2004 PN D/A Drawing No. 2





Gandy  
Channel  
North

Shore Acres  
Dredge Hole

Northshore  
Beach

MacDill  
Hole

SCALE IN FEET



-5,000 0 5,000 10,000

U.S. ARMY CORPS OF ENGINEERS  
JACKSONVILLE DISTRICT, JACKSONVILLE, FLORIDA

Public Notice PN-CO-TH-271  
Tampa Harbor Maintenance Dredging  
Placement Areas/Disposal Areas (D/A)  
Location Map Closeup of Gandy, Shore Acres,  
Northshore and MacDill Sites

Date: Aug 2004 PN D/A Drawing No. 3

# McKay Bay Dredge Cuts

SCALE IN FEET



-5,000 0 5,000 10,000

D/A 2D

D/A C

D/A B

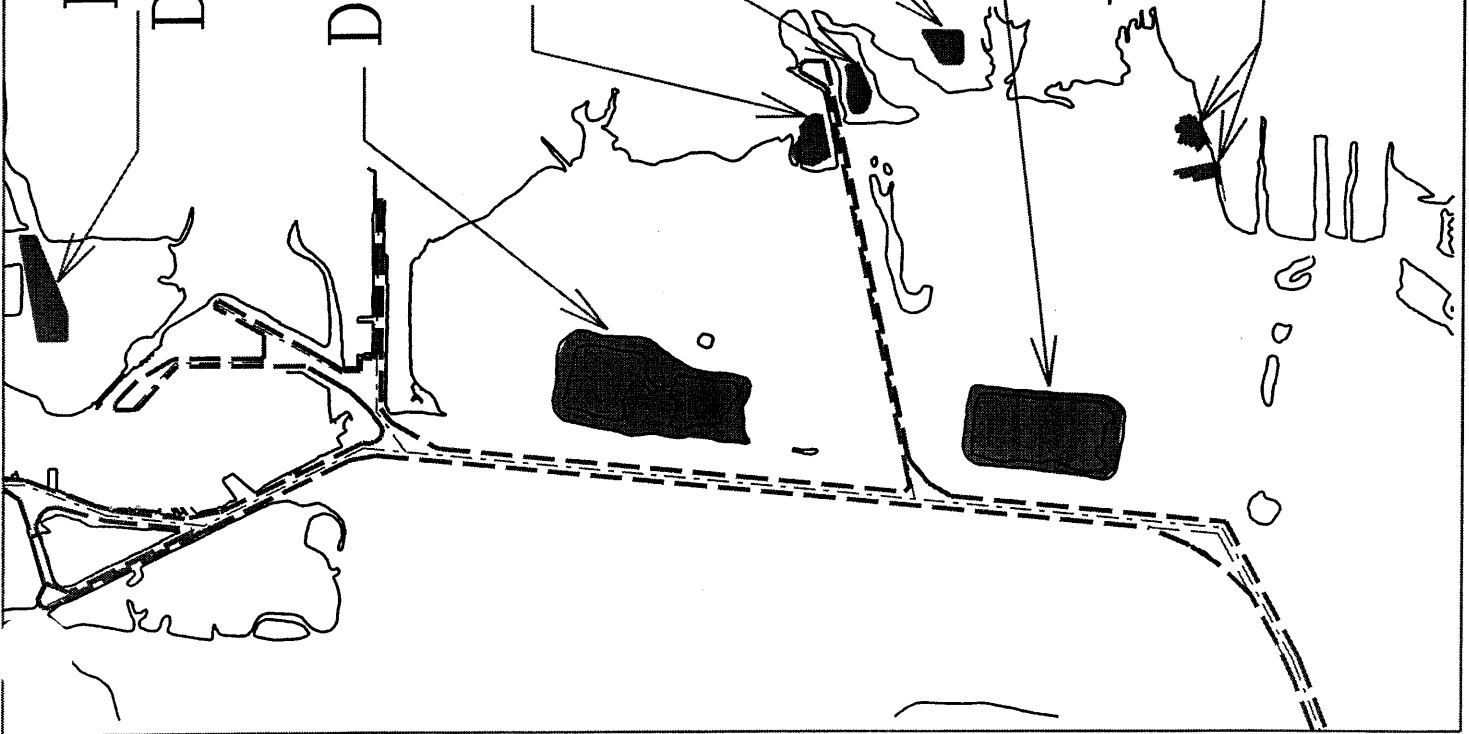
D/A A

D/A 3D

Whiskey  
Stump  
Key  
Holes



U.S. ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT, JACKSONVILLE, FLORIDA	
Public Notice PN-CO-TH-271 Tampa Harbor Maintenance Dredging Placement Areas/Disposal Areas (D/A) Location Map Closeup of McKay Bay, D/A a, B, C, 2D, & 3D and Whiskey Stump Key Sites	
Date: Aug 2004	PN D/A Drawing No. 4



## **APPENDIX IV**

### **COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS**

## **COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS.**

**1. National Environmental Policy Act of 1969, as amended.** Public meetings through the Tampa Bay Regional Planning Council's Agency on Bay Management have been conducted. In addition a public notice (PN-CO-TH-271) published on April 24, 2004, was sent to all interested parties. Environmental information on the project has been compiled and an Environmental Assessment prepared. A Finding of No Significant Impact accompanies this document. The public coordination process and environmental assessment complies with the intent of NEPA. The process will fully comply with the Act the Findings of No Significant Impact has been signed by the District Commander.

**2. Endangered Species Act of 1973, as amended.** During the preparation of the public notice the District made a determination that the laying of the pipeline and discharge of dredged material into holes would not impact any species along this corridor. No adverse comments were received from the USFWS regarding that determination.

**3. Fish and Wildlife Coordination Act of 1958, as amended.** This Act is not applicable because this is associated with maintenance dredging.

**4. National Historic Preservation Act of 1966, as amended (PL 89-665).** Tampa Bay has one of the highest potentials for submerged prehistoric sites in Eastern North America. This is based on the frequency of early Paleoindian and Early Archaic sites in the surrounding bay area, sea level reconstructions indicate the entire bay was a terrestrial landscape until about 4,000 years ago and the fact that artifacts have been dredged up from several locations in the bay. A recent survey report, *Submerged Cultural Resources Remote Sensing Survey, Historic Assessment, and Diver Evaluations of 31 Targets in Tampa Bay, Hillsborough and Pinellas Counties, Florida* 2005 indicated the potential of locating submerged cultural material. Side scan images showed an area of bottom covered with rocks and boulders of various sizes. Large and small fragments of Bay Bottom chert were found within the rubble. However, intermixed with the chert were boulders and fishing related items. None of the chert recovered was modified or worked. The report recommended monitoring any future dredging activities in the vicinity of the site. Based on the potential for prehistoric sites existing in the bay, a monitoring plan may be developed, as well as predictive models, to locate historic properties within project areas. The Corps will determine if any properties are eligible for listing on the National Register of Historic Places within project areas. Federal statutes regarding these responsibilities include Section 106 of the National Historic Preservation Act; the Archeological Resources Protection Act of 1987; and the Advisory Council on Historic Preservation, "Procedures for the Protection of Historic and Cultural Properties" (36 CFR Part 800).

**5. Clean Water Act of 1972, as amended.**

Section 401. (Water Quality) . State water quality standards will be adhered to during construction. Various protective measures and monitoring programs will be conducted during

construction to ensure compliance with State water quality standards

Section 404 (b)(1). The purpose of Section 404(b)(1) of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the waters of the United States through the control of discharges of dredged or fill material. Controls are established through restrictions placed on the discharges in Guidelines published in 40 CFR 230. An evaluation of the dredged material was conducted (Appendix I). The impacts are addressed in the Environmental Assessment and are primarily related to the covering of benthic organisms in the holes, the increase in estuarine habitat for fisheries and birds, and a potential increase in seagrass bed growth.

Based on the probable impacts addressed in the draft environmental assessment, the 404(b)(1) evaluation and Inland Testing Manual requirements concerning the dredged material to be used, the proposed work would comply with the Guidelines and the intent of Section 404(b)(1) of the Clean Water Act.

**6. Clean Air Act of 1972, as amended.** This area of Hillsborough County is an attainment area and therefore, no air quality permits will be required for this project. Therefore, this Act would not be applicable.

**7. Coastal Zone Management Act of 1972, as amended.** The project has been evaluated in accordance with Section 307 of the Coastal Zone Management Act. It has been determined that the project would have no unacceptable impacts and would be consistent with the Florida Coastal Management Plan (Appendix II). The State Clearinghouse received a copy of the public notice and did not respond, so it is assumed based on the Federal CZMP regulations that the project is consistent with the Coastal Zone Management Plan (Appendix IV). Final state concurrence is issued concurrently with the issuance of the Water Quality Certification.

**8. Farmland Protection Policy Act of 1981.** No prime or unique farmland will be impacted by implementation of this project. This act is not applicable.

**9. Wild and Scenic River Act of 1968, as amended.** No designated Wild and Scenic river reaches will be affected by project related activities. This act is not applicable.

**10. Marine Mammal Protection Act of 1972, as amended.** There would be no impacts from the placement of dredged material in the former dredged holes for restoration purposes on manatees and dolphins, therefore, this project is in compliance with the Act.

**11. Estuary Protection Act of 1968.** No designated estuary will be adversely affected by the restoration project. This act is not applicable.

**12. Federal Water Project Recreation Act, as amended.** There is no recreational development proposed for disposal. Therefore, this Act does not apply.

13. **Resource Conservation and Recovery Act of 1976, (PL 94-580; 7 U.S.C. 100, et seq.** This law has been determined not to apply as there are no items regulated under this act being disposed of or affected by this project.

14. **Toxic Substances Control Act of 1976, (PL 94-469; U.S.C. 2601, et seq.** This law has been determined not to apply as there are no items regulated under this act being disposed of or affected by this project.

15. **E.O. 11990, Protection of Wetlands.** No wetlands will be affected by project activities. This project is in compliance with the goals of this Executive Order.

16. **E.O. 11988, Floodplain Management.** No activities associated with this project will take place within a floodplain, therefore this project is in compliance with the goals of this Executive Order.

17. **E.O. 12898, Environmental Justice.** This project has been evaluated in accordance with the subject E.O. The project would not result in adverse human health or environmental effects. There would be no impacts on subsistence consumption of fish or wildlife from this project. Therefore, the work would comply with this E.O.

MAINTENANCE DREDGING AND BENEFICIAL USES  
OF DREDGED MATERIAL  
TAMPA HARBOR  
HILLSBOROUGH AND PINELLAS COUNTIES, FLORIDA

FINDING OF NO SIGNIFICANT IMPACT

I have reviewed the Environmental Assessment (EA) of the proposed action. This Finding incorporates by reference all discussions and conclusions contained in the Environmental Assessment attached hereto. Based on information analyzed in the EA reflecting pertinent information obtained from other agencies and special interest groups having jurisdiction by law and/or special expertise, I conclude that the proposed action will have no significant impact on the quality of the human environment. Reasons for this conclusion are in summary:

1. The proposed work would not jeopardize the continued existence of any endangered or threatened species.
2. The State Historic Preservation Officer concurred with the U.S. Army Corps of Engineers' determination that there would be no effect on historic properties associated with the maintenance dredging of Tampa Harbor and placement in the former dredge holes and pits in Tampa Bay area.
3. State water quality standards will be met.
4. The proposed project has been determined to be consistent with the Florida Coastal Zone Management Program.
5. Measures to eliminate, reduce, or avoid potential impacts to fish and wildlife resources will be implemented during project construction.

6. Benefits to the public will be creation of up to 207 acres of shallow-water estuarine habitat, upland dredged material placement area life extension, increased water quality from inadvertent sea grass creation and continued local economic stimulus.

In consideration of the information summarized, I find that the proposed action will not significantly affect the human environment and does not require an Environmental Impact Statement.

\_\_\_\_\_  
Date

\_\_\_\_\_  
ROBERT M. CARPENTER  
Colonel, Corps of Engineers  
Commanding

Fonferek/CESAJ-PD-EG/2803/  
Dugger/CESAJ-PD-EG  
Burns/CESAJ-PD-E  
Appelbaum/CESAJ-PD  
Murphy/CESAJ-DP-C  
Butler/CESAJ-CO  
Pike/CESAJ-OC  
Burns/CESAJ-DX  
Stor/CESAJ-DD  
Carpenter/CESAJ-DE

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## **APPENDIX V**

### **FLORIDA COASTAL ZONE CONSISTENCY DETERMINATION**

# **FLORIDA COASTAL ZONE MANAGEMENT PROGRAM FEDERAL CONSISTENCY EVALUATION PROCEDURES**

## **1. Chapter 161, Beach and Shore Preservation.**

The intent of the coastal construction permit program established by this chapter is to regulate construction projects located seaward of the line of mean high water and which might have an effect on natural shoreline processes.

Response: The proposed project is not located in a beach area. Therefore, the project would not apply to this chapter.

## **2. Chapters 186 and 187, State and Regional Planning.**

These chapters establish the State Comprehensive Plan that sets goals that articulate a strategic vision of the State's future. Its purpose is to define in a broad sense, goals, and policies that provide decision-makers directions for the future and provide long-range guidance for an orderly social, economic and physical growth.

Response: A public notice was coordinated with the State Clearinghouse. No adverse comments were received, and the proposed project was determined to be consistent with the Florida Coastal management Plan. Therefore, this project would comply with the intent of this Chapter.

## **3. Chapter 252, Disaster Preparation, Response and Mitigation.**

This chapter creates a state emergency management agency, with the authority to provide for the common defense; to protect the public peace, health and safety; and to preserve the lives and property of the people of Florida.

Response: The placement would be consistent with the intent of this Chapter.

## **4. Chapter 253, State Lands.**

This chapter governs the management of submerged state lands and resources within state lands. This includes archeological and historical resources; water resources; fish and wildlife resources; beaches and dunes; submerged grass beds and other benthic communities; swamps, marshes and other wetlands; mineral resources; unique natural features; submerged lands; spoil islands; and artificial reefs.

Response: The placements would not affect state lands. The proposal would comply with the

intent of this chapter.

**5. Chapters 253, 259, 260, and 375, Land Acquisition.**

This chapter authorizes the state to acquire land to protect environmentally sensitive areas.

Response: Since the affected property already is in public ownership by the Tampa Port Authority, this chapter would not apply.

**6. Chapter 258, State Parks and Aquatic Preserves.**

This chapter authorizes the state to manage state parks and preserves. Consistency with this statute would include consideration of projects that would directly or indirectly adversely impact park property, natural resources, park programs, management or operations.

Response: The proposed work would provide positive benefits to the Tampa Bay Aquatic Preserves by increasing estuarine habitat, improving water quality, and promoting increased seagrass growth in the Bay, and would, therefore, be consistent with this chapter.

**7. Chapter 267, Historic Preservation.**

This chapter establishes the procedures for implementing the Florida Historic Resources Act responsibilities.

Response: The placement of dredged material from Tampa Harbor in former dredged holes for restoration is being coordinated with the Florida State Historic Preservation Officer. Procedures would be implemented to avoid affects on unidentified historic properties that may be located within the affected areas. No known historic properties, included or eligible for inclusion in the National Register of Historic Places, have been identified in the navigation channel or in the proposed upland disposal area. Therefore, the work will be consistent with the goals of this chapter.

**8. Chapter 288, Economic Development and Tourism.**

This chapter directs the state to provide guidance and promotion of beneficial development through encouraging economic diversification and promoting tourism.

Response: The placement of dredged material from Tampa Harbor in former dredged holes for restoration encourage the development Tampa Bay, promote eco-tourism of the restoration site and economic growth of the area. Therefore, the project would be consistent with the goals of this chapter.

**9. Chapters 334 and 339, Public Transportation.**

This chapter authorizes the planning and development of a safe, balanced and efficient transportation system.

Response: The placement of dredged material from Tampa Harbor in former dredged holes for restoration promotes recreational and commercial navigation within Tampa Bay. Therefore, the work would comply with the goals of this chapter.

#### **10. Chapter 370, Saltwater Living Resources.**

This chapter directs the state to preserve, manage and protect the marine, crustacean, shell and anadromous fishery resources in state waters; to protect and enhance the marine and estuarine environment; to regulate fishermen and vessels of the state engaged in the taking of such resources within or without state waters; to issue licenses for the taking and processing products of fisheries; to secure and maintain statistical records of the catch of each such species; and, to conduct scientific, economic, and other studies and research.

Response: The placement would not adversely affect saltwater living resources. No significant saltwater living resources are found in the placement area. The goal of the restoration project is to increase the saltwater living resources ie., seagrasses. Based on the overall impacts of the work, the work is consistent with the goals of this chapter.

#### **11. Chapter 372, Living Land and Freshwater Resources.**

This chapter establishes the Game and Freshwater Fish Commission and directs it to manage freshwater aquatic life and wild animal life and their habitat to perpetuate a diversity of species with densities and distributions that provide sustained ecological, recreational, scientific, educational, aesthetic, and economic benefits.

Response: The placement of material in former dredged holes for restoration would cause a change in the species and size distribution of fish in this area. The filling of the holes would provide estuarine habitat consisting of flats where seagrass colonization potential would exist. Therefore, the work would comply with the goals of this chapter.

#### **12. Chapter 373, Water Resources.**

This chapter provides the authority to regulate the withdrawal, diversion, storage, and consumption of water.

Response: This work does not involve water resources as described by this chapter.

#### **13. Chapter 376, Pollutant Spill Prevention and Control.**

This chapter regulates the transfer, storage, and transportation of pollutants and the cleanup of pollutant discharges.

Response: This work does not involve the transportation or discharging of pollutants.

**14. Chapter 377, Oil and Gas Exploration and Production.**

This chapter authorizes the regulation of all phases of exploration, drilling, and production of oil, gas, and other petroleum products.

Response: This work does not involve the exploration, drilling or production of gas, oil or petroleum product and therefore, does not apply.

**15. Chapter 380, Environmental Land and Water Management.**

This chapter establishes criteria and procedures to assure that local land development decisions consider the regional impact nature of proposed large-scale development.

Response: The project has been coordinated with the local regional planning commission. Therefore, the work would be consistent with the goals of this chapter.

**16. Chapter 388, Arthropod Control.**

This chapter provides for a comprehensive approach for abatement or suppression of mosquitoes and other pest arthropods within the state.

Response: The work would not further the propagation of mosquitoes or other pest arthropods.

**17. Chapter 403, Environmental Control.**

This chapter authorizes the regulation of pollution of the air and waters of the state by the DEP.

Response: A public notice was sent to the State Clearinghouse and no adverse comments were received. Therefore, the work is in compliance at this stage of the project. Full compliance will be obtained through the issuance of a permit from the Department of Environmental Protection.

## 18. Chapter 582, Soil and Water Conservation.

This chapter establishes policy for the conservation of the state soil and water through the Department of Agriculture. Land use policies will be evaluated in terms of their tendency to cause or contribute to soil erosion or to conserve, develop, and utilize soil and water resources both onsite or in adjoining properties affected by the work. Particular attention will be given to work on or near agricultural lands.

Response: The project would not impact agricultural lands not designated for environmental restoration projects. Therefore, this chapter would not apply.

## APPENDIX VI

### ESSENTIAL FISH HABITAT DETERMINATION

## **ESSENTIAL FISH HABITAT ASSESSMENT**

### **Tampa Bay Dredge Hole Restoration**

1. The Jacksonville District is considering placing dredged material in former dredged holes and upland pits for environmental restoration purposes. A determination was made, published in the public notice and coordinated with the National Marine Fisheries Service. No response was received.
2. The holes that are being considered to be filled have poor water quality and benthic characteristics. The holes are not essential for any life stages. The restoration effort would promote sea grass re-colonization since they are located near seagrass beds which is more important as a life stage habitat for small fish.
4. Impacts to this resource are identified in Section 4, Environmental Consequences of the Environmental Assessment. We consider these impacts to be minimal on an individual project and cumulative affects basis.